

LEGACIES AT LONG BEACH:  
SUSTAINABILITY AND STRATEGY IN THE CANADIAN MODEL FOREST  
PROGRAM

By

EMILY JANE DAVIS

B.A.Hon. McGill University, 2005

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF  
THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF ARTS

in

THE FACULTY OF GRADUATE STUDIES

(GEOGRAPHY)

THE UNIVERSITY OF BRITISH COLUMBIA

August 2007

© Emily Jane Davis, 2007

## Abstract

The Canadian Model Forest Program began with the establishment of ten sites across the country in 1992 as part of the Green Plan for a Healthy Environment. With federal funding and direction, these were expected to mediate among local stakeholders, demonstrate best practices, and provide a forum for exchange of “cutting-edge” science and technology. My thesis surveys these policies through a focus on the Long Beach Model Forest in Clayoquot Sound, disbanded in 2002 and considered a failure. I examine how a certain application of what sustainable development meant *federally* interacted with the localized politics of places like Clayoquot. This meaning was shaped largely by Canada’s efforts to present itself as a “model forest nation” in international environmental governance institutions such as the Intergovernmental Panel on Forests. Through textual analysis of Model Forest Program documentation at the local, provincial, and federal levels, and forest-oriented political economy, I conclude that large bureaucratic projects deploying “sustainability” at this time did indicate new ways in which the forest was known and ordered through techniques of governance, mapping, and ecosystem management. However, for communities on the front lines of the “war in the woods”, these types of efforts often amounted to symbolic politics. The federal government continued to perform a neutral advocacy role and reinforce visions of objectivity within the bounded space of a model forest, even with regards to the social demands of sustainability. Rather than providing a simple narrative of failure in Long Beach, I emphasize the complexity and contingency inherent to its multistakeholder decision-making processes, especially the often-productive relations between members of the Nuu-chah-nulth First Nation and non-aboriginal communities in Clayoquot Sound.

# Table of Contents

<b>Abstract.....</b>	<b>ii</b>
<b>Table of Contents.....</b>	<b>iii</b>
<b>List of Tables.....</b>	<b>v</b>
<b>List of Figures.....</b>	<b>vi</b>
<b>List of abbreviations.....</b>	<b>vii</b>
<b>Notes on Usage.....</b>	<b>viii</b>
<b>Acknowledgements.....</b>	<b>x</b>
<b>Chapter 1 Forests For Future Generations: Seeing the Trees in Sustainable Development Discourse.....</b>	<b>1</b>
1.1 Introduction.....	1
1.2 Understanding sustainable development in a “forest nation”: the Canadian Model Forest Program.....	2
1.3 Sustainable Development and Sustainability: What is Sustained and Why?.....	5
1.3.1. Sustainable forest management.....	6
1.3.2. Sustainable Development and International Environmental Governance..	9
1.3.3. Indigenous peoples, TEK, and sustainable development discourse.....	13
1.4. Issues of Scale in Governance.....	15
<b>Chapter 2. Sustainability and Strategy in a Forest Nation.....</b>	<b>18</b>
2.1. Introduction: A History of Intensification.....	18
2.2. Federal Forest Stewardship in the Twentieth Century.....	19
2.2.1. “A Judicious System for Cutting the Timber Required.”.....	20
2.2.2. Sustain(ing) yield: “Forestry is an art born of necessity.”.....	21
2.3. Stewardship and Strategy: 1981-1987.....	24
2.4. The Forest as Economy and Environment.....	26
2.5. The Forest as Ecosystem.....	28
2.6. Conclusions on Sustainability and Strategy.....	31
<b>Chapter 3. More Than Just Trees? The Canadian Model Forest Program...33</b>	
3.1. (Not Such?) Strange Bedfellows: Partners in the Sustainable Development of Forests.....	33
3.2. Model Forests: A New Structure of Representation.....	37
3.3. Management and Science in the Model Forest Program.....	38
3.4. Communications and Technology Transfer: A True Network?.....	41
3.5. Partnership and Community Relationships in Model Forests.....	43
3.5.1. The Original Custodians of “the Forest Resource”.....	46
3.6. The Model Forest Program: From Sustained Yield to Sustainable Development?.....	49
3.7. Conclusion: Meanings of the Model Forest Program.....	50

<b>Chapter 4 The “Uneven” Geographies of Places: Forest Politics in British Columbia.....</b>	<b>53</b>
4.1. A Shifting Scene: Forest Practices From Liquidation to Falldown.....	53
4.1.1. A “Liquidation Regime”.....	54
4.1.2. A Supply in Perpetuity: Sustained Yield.....	55
4.2. The Falldown of B.C’s Forests: Industry and Communities.....	59
4.3. Sustainable Development Discourse in B.C.’s Forests.....	61
4.3.1. Forest Reform and Sustainable Development.....	62
4.4. Places and Reckonings.....	65
4.5. First Nations and Forest Politics.....	68
4.6. Clayoquot.....	70
4.7. Conclusion: The Model Forest Program: Federal Visions Through Provincial Lenses.....	74

<b>Chapter 5 The Disorder Within: New Perspectives on the Long Beach Model Forest.....</b>	<b>77</b>
5.1. Introduction: A Failure in 2002.....	77
5.2. “We Are Not Even Sure What the Forest Is”.....	78
5.3. Formative Years: What the LBMF <i>Was</i> and <i>Wasn’t</i> .....	81
5.4. Sustainability as Expressed in LBMF Projects: Science and Management.....	83
5.5. Sustainability as Expressed in LBMF Projects: Empowerment and Complexity.....	87
5.5.1. The Nuu-chah-nulth and the LBMF.....	90
5.5.2. Hahulthi and Other Engagements with TEK.....	91
5.5.3. TEK in Clayoquot Sound.....	92

<b>Conclusion.....</b>	<b>98</b>
------------------------	-----------

<b>Bibliography.....</b>	<b>112</b>
--------------------------	------------

**Appendices**

Appendix 1: A Timeline of Department Names for the Federal Forest Sector.....	125
---	-----

Appendix 2: The Scientific Panel for Sustainable Forest Practices in Clayoquot Sound: Selected references to stance on Nuu-chah-nulth involvement.....	127
--	-----

## List of Tables

Table 1.1. The shifting terrain of sustainable forest discourse in Canada.....	102
Table 1.2. Strategies for national governments found in the Forest Principles.....	103
Table 3.1. Envisioned attributes of a model forest in 1991.....	104

## List of Figures

Figure 3.1. The Ten Model Forest Selections, 1992.....	105
Figure 3.2. Pedagogy that invokes Model Forests.....	106
Figure 4.1. Vancouver Island, British Columbia.....	108
Figure 4.2. Clayoquot Sound, British Columbia.....	109
Figure 5.1. The Long Beach Model Forest.....	110
Figure 5.2. Sectoral representation on the Long Beach Model Forest Board of Directors as planned at its inception, 1993.....	111

## List of Abbreviations

AAC	annual allowable cut
C&I	Criteria and Indicators
CCFM	Canadian Council of Forest Ministers
CCREM	Canadian Council of Resource and Environment Ministers
CFS	Canadian Forest Service
CMFN	Canadian Model Forest Network
CORE	Commission on Resources and the Environment
CSSDSSC	Clayoquot Sound Sustainable Development Steering Committee
GIS	geographic information systems
GPS	global positioning systems
ha.	hectares
IMA	Interim Measures Agreement
LBMF	Long Beach Model Forest
LBMFS	Long Beach Model Forest Society
LRMP	Land Resource Management Plan
MB	MacMillan Bloedel
MFP	Model Forest Program
MOU	Memorandum of Understanding
NACMF	National Advisory Committee on Model Forests (CMFN)
NDP	New Democratic Party
NSOC	National Strategic Operations Committee (CMFN)
NTC	Nuu-čah-nulth Tribal Council
PAMF	Prince Albert Model Forest
PYSU	Public Sustained Yield Unit
RDAC	Regional District of Alberni-Clayoquot
SPSFCS	Scientific Panel for Sustainable Forest Practices in Clayoquot Sound
TEK	traditional ecological knowledge(s)
TFL	Tree Farm Licence
UNCED	United Nations Commission on Environment and Development
WCED	World Commission on Environment and Development (Brundtland Commission)

## Notes on Usage

In this thesis, I discuss ideas and groups that have carried many different labels, depending on the date and/or location of usage. Part of my argument is that shifts in language are indicators of shifting meaning, and so while it may be confusing at times, for the most part, I try to use the source terminology to help chart these changes. Below are a few notes on some frequently used terms.

### **Sustainability**

I discuss sustained yield, sustainable development, sustainability, and sustainable forest management. This has a rough chronology. Sustained yield was a policy implemented after the 1950s, while sustainable development was not really “coined” until the Brundtland Commission in 1987, and sustainability in the 1990s. Sustainable forest management/forestry broadly refers to forestry as practiced with a sense of multiple values and of the forest as an ecosystem-forestry in the past decade. These distinctions are also issues of scope. Sustained yield was a mathematically based policy applied to natural resource extraction such as in forests and fisheries, whereas sustainable development and even more so, sustainability, refer to larger concepts that include explicit consideration of human and development issues. Moreover, the nature of these experiences and adaptations has shifted over time and as a tension emerged between the notions of “sustainable development” and “sustainability.” While this distinction cannot adequately encompass all permutations of concern, which range from ecological to social to community sustainability, it is useful. Sustainable development is still usually used by government and industry actors, while sustainability is more often used by non-governmental organizations, and implies more of a state than a process. I use sustainable development frequently, because I argue that it was the concept that best summarized the federal government’s perception of forest issues when it created the Model Forest Program. These concepts are outlined in Table 1.1. That being said, these are not authoritative definitions, nor am I even seeking definition. There are countless works that discuss definitional issues if further clarification is desired.

### **The Canadian Forest Service**

What is known in 2007 as the Canadian Forest Service has a long history of name changes and different departmental orientations within Canadian bureaucracy. These are charted in Appendix 1. At its inception in 1899, it was the Dominion Forestry Branch. The most significant change for this thesis was in 1993, from Forestry Canada to the Canadian Forest Service. Thus, I refer to the Canadian Forest Service (CFS) from 1994 onwards, and credit to it all materials from that period. At times, I omit the specific title and simply refer to the “federal forest service/sector” for simplicity.

### **First Nations**

I use the term First Nation(s) to refer to the category of aboriginal or indigenous ethnicity within Canadian society. A First Nation is not a legal entity or political nation as such, but is a more recent term for “band”, which is “a body of Indians for whose collective use and benefit lands have been set apart or money is held by the Canadian Crown, or declared to be a band for the purposes of the Indian Act”, according to the Terminology Guide of Indian and Northern Affairs Canada. First Nations, Inuit and Metis people collectively are known as Aboriginal peoples. I use First Nation(s) and “aboriginal” in this thesis as per this Canadian terminology, and only use the more general “indigenous peoples” when discussing international matters.

## Acknowledgements

I am deeply indebted to Graeme Wynn for his incisive editing and endless patience. Without his supervision, this thesis would not have been possible. Matthew Evenden read the final draft and helped greatly with the finishing touches. John Innes, John Robinson, and Karen Bakker also provided wise counsel at various junctures. Thanks are due to Eric Leinberger, who drew the maps; to Vincent Kujala, who saved the day with his computer skills; and to the entire geography department staff. The assistance of Rebecca Vines and David Fraser of the Clayoquot Biosphere Trust made my archival research in Ucluelet much easier. Derek Bates of the Canadian Forest Service helped me find my way through the past of the Model Forest Program. All of my colleagues from Geog High deserve recognition as well for their stimulating company and friendship, especially Shannon Stunden Bower, Matt Dyce, Bill Magruder, Tyler Pearce, and John Thistle. Final thanks are to my family, and to Adam Cochrane for his unequivocal support of my desire to continue learning.

# Chapter 1

## Forests For Future Generations: Seeing the Trees in Sustainable Development Discourse

### 1.1. Introduction

This thesis spans roughly a decade between 1991 and 2002 in analyzing a federal forest sector program and a single model forest. However, it cannot stand without a significant amount of contextualization, and without consideration of the history behind the relationships, ideas, or entities discussed within it. The motivations for change and for “environmental” programs such as the Model Forest Program arise from complex, interdependent processes that function across scales of governance. The Canadian Model Forest Program was a response to concerns about “sustainable development”, or “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”.<sup>1</sup> Concise as this definition is, it hardly reins in a concept that is rife with all sorts of implications. Before the journey through thickets of forest politics can begin, it is essential to outline what is meant by “sustainable development”. Political structures, strategies, and experiences of particular places have shaped engagements with the idea of “sustaining”, despite the clear presence of an international dialogue that defined the term and ordained large-scale agendas. Sustainable development meant and means different things at the international, national, provincial, and local levels. Its range of meanings derives from the ways in which commonly held and more vague definitions, projected from the “larger” scale of international environmental governance, combine with the particular motives and needs of actors at each smaller scale to produce a unique engagement. The meaning found at each scale will be discussed in the following chapters. While sustainable development is, ultimately, a dynamic and adaptable concept, this thesis also shows how it can be utilized to maintain and justify the status quo, such as the forest tenure system in B.C. This is due both to the inertia of the systems, relationships, or conditions in question, and how the notion of sustainable development may stimulate a range of permissive or lax policies in the name of progress.

---

<sup>1</sup> World Commission on Environment and Development (WCED), *Our Common Future* (Oxford: Oxford University Press, 1987).

## 1.2 Understanding sustainable development in a “forest nation”: the Canadian Model Forest Program

Perspectives on a “big” concept like sustainable development change when the focus shifts from significance on a large international governance stage to what the concept means within particular nations, given their varying historical experiences and contexts. Colonialism shaped many places and geared entire economies towards the production of “staples” for export, and continues to trap numerous countries in a web of uneven and exploitative terms of trade. While Canada is not generally regarded as troubled by these same dependencies, there is no denying the role that extractive industries—cod, fur, timber—played in its settlement and early geography.<sup>2</sup> Thus, management of its resources has been central in shaping intergovernmental organization and scales of state power. Federalism, or the distinction of two levels of authority in federal and provincial jurisdiction, is a fundamental aspect of the Canadian political system.<sup>3</sup> What is of importance for this thesis is the rather limited role of the federal government in the forest industry by the time of the Model Forest Program (1991). At the end of the twentieth century, its position centred mainly on coordination and promotion of the industry. The federal forest service had also been a source of much scientific research since its inception in 1899. Primary fiscal responsibility for organizing harvesting through tenure systems and corporations

---

<sup>2</sup> See Trevor Barnes, “Borderline communities: Canadian single industry towns, resources, and Harold Innis” in *Ordering Space/Regions*, ed. H. Van Houtum, O. Kramsch, and W. Zierhofer, (Aldershot: Ashgate, 2005), 109-22 ; J.M.S. Careless, *Frontier and Metropolis: Regions, Cities, and Identities in Canada Before 1914* (Toronto: University of Toronto Press, 1989); and Harold Innis, *Problems of Staple Production in Canada* (Toronto: The Ryerson Press, 1933). The staples theory of Canadian economic development holds that Canada’s extractive industries shaped regional socioeconomic structures, forming a series of hinterlands or peripheries exploited for their resources by the core.

<sup>3</sup> See, for example, Herman Bakvis and W.M. Chandler, *Federalism and the Role of the State* (Toronto: University of Toronto Press, 1987); Herman Bakvis and Grace Skogstad, eds., *Canadian Federalism: Performance, Effectiveness, Legitimacy* (Toronto: Oxford University Press, 2001); David Milne, *Tug of War: Ottawa and the Provinces under Trudeau and Mulroney* (Halifax: James Lorimer and Company, Ltd., 1986); and M.W. Westmacott and H. Mellon, *Challenges to Canadian Federalism* (Scarborough, Ont: Prentice-Hall Canada, 1998). Federalism is of particular importance to the study of Canadian political economy, and justice to this cannot be done here. The role of the federal government has been mediated over the years by its engagement with fiscal situations, international trade, Quebec’s restlessness, First Nations rights, and other issues. Many have examined the workings of federal power in relation to these various arenas or the relationship of federalism to democracy.

(to be discussed in Chapter 4) lay with the provinces.<sup>4</sup> Ottawa's authority in international and trade affairs also shaped its role in forests; as the diplomatic face of Canada, it was increasingly required to demonstrate responsiveness and awareness of the impacts of its resource industries. As ecological and developmental concerns arose worldwide and at home, the federal government poised itself to deliver both coherent strategies aligned with sustainable development discourse as well as the impression that it was leading Canada in protection of the environment. In Chapter 2, I provide a brief history of the federal forest sector, and review of a series of federal strategies (1981, 1987, and 1992), intended to move forestry away from sustained yield and towards sustainable management. These strategies were also equally concerned with defining a role for the federal forest service, which had suffered a century of identity crises and threats to its existence.

The impetus and funding for the Model Forest Program had their origins not in those forest sector strategies, but in an environmental policy called "Canada's Green Plan for a Healthy Environment." This five-year plan boldly and frequently invoked sustainable development as a new guiding principle. However, as political scientists Kathryn Harrison, Michael Howlett, Peter Morrison, and others have shown, this was an initiative designed to spend money on the environment and appease the public without triggering intergovernmental backlash and blame. The environment experienced shifts as a political objective; in times of recession or other economic downturn, voters were less likely to support environmental initiatives. The emphasis on research and development produced funding for parks and other projects such as the Model Forest Program; these were deliverables with vague mandates yet much publicity. In Chapter 3, I detail the selection process and goals of Model Forests, and examine how they functioned with regards to their range of purported scientific and socioeconomic goals. Specifically, I try to understand how Model Forests were intended to act as a communicative network of advanced research and best practices, as neutral meeting grounds, and especially as a federal project that would buttress the significance of Forestry Canada in the forests. This analysis was made possible through the use of Model Forest Program documentation, archived at the Ministry of Forests in Victoria, B.C., as well as the Canadian Model Forest Network website. Sources included brochures, some meeting agendas, project reports, plans, and independent evaluations. Given the scope of my project and government

---

<sup>4</sup> Michael Howlett, "Policy venues, policy spillovers, and policy change: the courts, aboriginal rights, and British Columbia forest policy" in *In Search of Sustainability: British Columbia Forest Policy in the 1990s*, ed. Benjamin Cashore *et al.* (Vancouver, UBC Press, 2001), 120-139.

confidentiality issues, it was not possible to access much internal correspondence or documentation from the federal level, stored in Ottawa. To some extent, this work compensates by a critical and contextual reading of press releases, promotional information, and other material that was geared towards a positive presentation of the Model Forest Program.

It is this depiction of Model Forests as neutral laboratory sites that I hope to dismantle by deepening my focus on how the Program was practiced through a case study of the Long Beach Model Forest (LBMF) on Vancouver Island, British Columbia. To situate the LBMF, however, first requires an understanding of the forest politics in British Columbia that made the LBMF region, namely Clayoquot Sound, into such contested ground. In Chapter 4, I sketch a basic geography of changing forest practices in B.C., with a view to depicting the forest industry as well as its detractors as central to the provincial identity. An emphasis on more sustainable forestry in B.C. has meant a shift away from a paradigm of sustained yield, the policy originally intended to ensure continuous timber supply and prevent the ramifications of the boom-bust export economy that had shaped B.C.'s socioeconomic structure. I show, however, that this shift has happened in a rather uneven way, one that largely reflects the interests and efforts of environmentalists and the public. Coastal regions such as Clayoquot Sound and the Great Bear Rainforest on the Central Coast are now protected and managed for values other than timber. Interior and northern ecosystems have certainly received less attention, and do not have the same rapid development of tourism that is becoming an economic mainstay of coastal communities like Tofino. With the advent of a mountain pine beetle epidemic, the question of sustainability's "three legs"-ecological, social and economic<sup>5</sup> - grows most pressing in the interior, yet the more revolutionary land use plans have been developed for coastal old-growth rainforest. Equally significant is the presence of many First Nations in B.C., and their politicization as groups who are seeking land title and government-to-government respect in negotiations. This struggle and the relationship of First Nations to their land is central to any understanding of forest politics, and should not be sidelined or written out in favour of a narrative that simply pits environmentalists against industry. As discourses about sustainability gradually ask more of our societies, they also create more space for the numerous voices that may have been silenced through Canada's industrial, colonial past. B.C. has a complex social and cultural history, and its

---

<sup>5</sup> Sustainability is widely described as a stool with three equally supportive social, economic, and ecological legs. Neil Dawe and Kenneth Ryan describe instances of this analogy's use in a brief article. See "The Faulty Three-Legged Stool of Sustainable Development," *Conservation Biology* 17, no. 5 (2003): 1458-1460.

dynamism would certainly influence a Model Forest set down anywhere in its fabric-particularly in Clayoquot Sound.

Chapter 4 also “sets the scene” for an understanding of where and what Clayoquot Sound is, and why it is an interesting place to locate a Model Forest. I then continue my document analysis in Chapter 5, this time focusing on a collection of materials from the LBMF’s nine-year existence. When the LBMF was disbanded in 2002, the contents of its offices were purportedly scattered by staff, who took bits and pieces. However, the establishment of a Clayoquot Biosphere Trust in the old LBMF office space meant that any materials left behind were organized and archived there. LBMF documentation included project reports, board meeting minutes and agendas, correspondence, newspaper clippings, photographs, and financial records. The interpersonal tensions in this Model Forest are evident in the archive, not only in what I found there, but also in what has been blacked out and censored. I begin Chapter 5 with accounts of the LBMF’s failure and closure, and then review how it functioned and what it accomplished. I pay particular heed to the role of the Nuu-chah-nulth First Nation in the LBMF, suggesting ways in which Nuu-chah-nulth values and input led the Model Forest to embrace social and cultural concerns in a way that was not paralleled elsewhere in the Program.

My hope is that this examination of the LBMF will serve not as a romanticized re-telling of events in Clayoquot Sound, or a simplistic argument against further scientific research that opens it to all forms of cultural criticism. Rather, I think that our understanding of what it means to be sustainable in forests has shifted over time, and that different sorts of projects can be situated variously along that trajectory. Before this journey through scales can occur, it is important to examine more thoroughly at least some of the considerations behind the idea of sustainable development.

### **1.3 Sustainable Development and Sustainability: What is Sustained and Why?**

Many have attempted to unpack and firmly define “sustainable development”, with varying degrees of success. However, there is value in explaining its history and context. Sustainable development may be described as a discourse, or a shared way of apprehending the world,<sup>6</sup> which overlaps with certain discourses around nature.<sup>7</sup> This is not to say that nature or

---

<sup>6</sup> John Dryzek, *The Politics of the Earth: Environmental Discourses* (Oxford: Oxford University Press, 2005).

<sup>7</sup> William Cronon, ed., *Uncommon Ground: Toward Reinventing Nature* (New York: W.W. Norton and Company, 1995). As literary critic Raymond Williams has remarked, nature is the most complex word in the English language. Its meaning can vary. Much work has been done to

the environment are only defined and constructed through social interpretations, or that they can only be analyzed through explicit use of discourse analysis. There is a range of valuable perspectives on environmental issues. In this thesis, I want to recognize that “language matters, that the way we construct, interpret, discuss and analyze environmental problems has all kinds of consequences”.<sup>8</sup> The federal forest sector in Canada perceived different ways of maintaining its resource base that were dependent on changes in international environmental discourses. Political scientists Michael Howlett and Jeremy Rayner have gone so far as to suggest that an “international regime” of environmental governance is increasingly shaping the management of Canadian forests, in both an economic and ecological sense.<sup>9</sup> Through engagement with that international realm of ideas, the Canadian Forest Service (CFS) formulated its own discourse of sustainable development. This discourse would support the CFS’s role in forest management as well as speak to the public in the changing language of environmental concern. It would help the CFS retain salience in changing times; thus, what was to be sustained was not only environmental but also political in nature.

### **1.3.1. Sustainable forest management**

This shifting terrain of sustainable forest discourse in Canada might be seen in three roughly chronological phases, identified in Table 1.1 as sustained yield, sustainable development, and sustainability. This classification does not necessarily signify an evolution to better, more advanced notions, nor does it mean that these ideas are discrete and distinct. The characteristics associated with each are malleable and multifaceted across time and scales. However, it is useful to sketch a broad trajectory of thought about best uses of the forest, a trajectory that gradually became less optimistic about economic development and technological fixes, and more inclusive of social concerns and cognizant of the need for creative changes. Table 1.1 summarizes the basic characteristics associated with each of the three phases in

---

deconstruct popular idea of “the natural world” as an innately balanced ecosystem that humans stand outside of and act upon-William Cronon and others do so notably in his edited volume, *Uncommon Ground*. Others approach nature from a cultural-critical perspective, pointing to the ways in which it is a human construction. “This is not to say that the nonhuman world is somehow unreal or a mere figment of our imaginations-far from it. But the way we describe and understand that world is so entangled with our own values and assumptions that the two can never be separated”, Cronon remarks in his introduction.

<sup>8</sup> Dryzek, *Politics of the Earth*, 10.

<sup>9</sup> Michael Howlett and Jeremy Rayner, “The Business and Government Nexus: Principal Elements and Dynamics of the Canadian Forest Policy Regime” in *Canadian Forest Policy: Adapting to Change*, ed. Michael Howlett (Toronto: University of Toronto Press, 2001), 23-64.

relation to Canadian forest management. The transitions between these phases, the blurring and the social forces that link them cannot be depicted in such a figure. These must be explained as well. First, although sustained yield is strictly a management policy, not a broader concept, it can be analyzed alongside sustainable development and sustainability. Forest management always has larger implications, even in times when these were not explicitly recognized or situated in a social framework. Assumptions about human capacity, the authority of science to order the forest, the labour regime necessary to harvest it--these are all integral to a sustained yield regime. Sustained yield is the continuous supply of timber through the scientific regulation of harvest.<sup>10</sup> Forest policy in Canada was long designed around a particular ideal of a forested landscape: the *normalbaum* or forest of "normal trees". This concept had its origins in Europe and specifically Prussian/Saxon scientific forestry, which viewed forests primarily through a focus on the annual timber revenue they could provide.<sup>11</sup> This perception, which excised or did not recognize the other biotic components of a forested ecosystem or the importance of anthropogenic interactions, was the product of an efficient and utilitarian state. Mathematicians were employed to develop a precise notion of what volume of wood could be harvested at a constant ratio. The *normalbaum* was the calculable result of this; a standardized tree, the harvesting of which would produce a consistent volume of saleable wood. The outcome of the calculation and development of the concept of maximum sustained yield was a forest conceived in dollars and marketable units. In British Columbia, sustained yield was defined as "a perpetual yield of wood of commercially usable quality from regional areas in yearly or periodic qualities of equal or increasing volume".<sup>12</sup> It was thought that through controlled transitions between forest structures, an even-aged, fast-growing, and efficient young forest could be created. Importantly, sustained yield required care of the forests for long-term consideration across Canada, indicating knowledge of both the temporal and spatial nature of forest management. But this stewardship was to be dispensed only by experts. Forestry was a closed, professional network, wherein the state of trees and landscapes was best left in the capable hands of governments and scientists.

---

<sup>10</sup> Lois Dellert, "Sustained Yield: Why Has it Failed to Achieve Sustainability?" in *The Wealth of Forests: Markets, Regulation, and Sustainable Forestry*, ed. Chris Tollefson (Vancouver: UBC Press, 1998), 255-277; James Scott, *Seeing Like a State* (New Haven, CT: Yale University Press, 1999).

<sup>11</sup> Scott, *Seeing Like a State*, 14. Canadian forestry schools sent many foresters abroad to receive their training, and the notion of the *normalbaum* was carried back in their educations.

<sup>12</sup> British Columbia Ministry of Forests and Range, "Forest, Range and Recreation Analysis: Section 9.1.3," 1995.

Sustained yield was predicated on a high level of confidence in these experts, and in the stability of forested ecosystems under calculated harvesting pressures. But the suppression of natural processes and the conformity to these artificial ideals would have an ecological toll. The changing productivity of the world's forests was one of many environmental concerns publicly apparent by the 1970s; deforestation and failure to regenerate became evident where sustained yield had been practiced. Pollution, acid rain, smog, and population growth rates were also topics of worry. A multifaceted series of environmental movements arose worldwide<sup>13</sup>. While modern environmentalism in North America is seen as a cultural privilege of the mostly urban middle to upper class, it also remains a political movement, a way of questioning how decisions are made regarding the natural world. The extraction of resources has long been the domain of private companies and governments, and of scientists trained to understand and advise the public on the use of nature. In British Columbia, for example, the federal government seemed and was rather distant, with little say in management of public land. From the early 1950s through the 1970s, the populist/conservative Social Credit party was in power and dominated the economy with an interventionist form of state capitalism oriented towards intensive use of and profits from natural resources.<sup>14</sup>

In the third quarter of the century, however, this began to change as the citizens of BC joined with others elsewhere in clamouring for greater understanding of and input into what was happening to their landscapes. The most significant dimensions of this shift are the demand of indigenous peoples to be involved and the recognition that their ways of knowing the environment are valuable. The cultural and social agency of people in these movements influenced broader shifts in discourse and elicited governmental responses. Although the focus of this thesis on these governmental responses may seem to "take the power" away from the people, I ultimately hope to show how initiatives such as the LBMF (and all that they entailed)

---

<sup>13</sup> Accounts of "modern environmentalism" range widely and are written from various disciplinary perspectives. While I cannot provide a comprehensive list, there are excellent discussions to be found in work that charts the history of environmental thought, such as David Pepper's *Modern Environmentalism: An Introduction* (London: Routledge, 1996). The rise of international environmental organization Greenpeace in Vancouver is detailed in Frank Zelko, "Making Greenpeace: The Development of Direct Action Environmentalism in British Columbia" *BC Studies* 142-143 (summer/autumn 2004), 197-240. Political science likely contains the most accounts of Canadian environmental politics. See Judith McKenzie, *Environmental Politics in Canada* (Toronto: Oxford University Press, 2002); Bruce Mitchell, ed., *Resource and Environmental Management in Canada* (Toronto: Oxford University Press, 1995); Melody Hessing, Michael Howlett, and Tracy Summerville, *Canadian Natural Resource and Environmental Policy* (Vancouver: UBC Press, 2005).

<sup>14</sup> Zelko, "Making Greenpeace", 197.

ate away at the dominant discourse, modifying it with consideration for human tensions and capabilities.

### **1.3.2. Sustainable Development and International Environmental Governance**

Environmental concerns officially entered the international governance sphere in 1972 at the United Nations Conference on the Human Environment in Stockholm. But the term “sustainable development” came into widespread use following the World Commission on Environment and Development’s (WCED) report in 1987. The WCED report, *Our Common Future*, was chaired by Gro Harlem Brundtland of Norway and investigated the interrelated global issues of environment and development. This was a high-profile UN General Assembly-mandated project that mobilized much public and political interest through public hearings, reports and advisory panels. The significance of the Brundtland Commission was the systematic relation of numerous issues that had previously been treated in isolation; this produced a vision of a “mutually reinforcing pursuit” of a plethora of goals.<sup>15</sup> Not only did this cement a linkage between environment and development, it also ensured that this linkage would be known as “sustainable development”.<sup>16</sup> Finally, the Brundtland report attempted to articulate a coherent set of principles; from this emerged the famous definition of “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” Proponents of sustainable development embrace technological advances, pragmatism, and efficiency gains as necessary means to sustainable ends.

The Brundtland report is also significant because it institutionalized sustainable development by putting it into a broader, development-oriented context, and by discussing it in a forum of international governance. Environmental problems have been conceived as generators of interstate dependence due to their transboundary nature, and thus can be analyzed as collective action problems to which the state system in principle can respond.<sup>17</sup> But those who study various aspects of international regimes and question their effectiveness increasingly challenge this assumption. They argue for new patterns of alternative politics that “operate at the interstices of the state system, working alongside it, perhaps supplementing it, at times

---

<sup>15</sup> Dryzek, *Politics of the Earth*, 145-149.

<sup>16</sup> Steven Bernstein, *The Compromise of Liberal Environmentalism* (New York: Columbia University Press, 2001).

<sup>17</sup> Matthew Paterson, “Overview: Interpreting Trends in International Environmental Governance” *International Affairs* 75 (no.4) 1999: 793-802.

supplanting it".<sup>18</sup> To encompass these possibilities, many choose a broader definition of politics than the traditional conception of acting state officials; for example, "the methods or means of realizing shared values, interests, and goals that may or may not derive from a formal centralized political authority".<sup>19</sup> In the end, both traditionally defined governance settings and more dynamic conceptions of political relationships need to be kept in mind during any consideration of sustainable development. The Brundtland Report was significant for its mobilization of public and political interest in the environment, which had receded due to worldwide issues with debt and recession since Stockholm. In the years that followed, many alternative governance structures such as community forests or water cooperatives sprang up as part of a drive towards more sustainable use of resources.

The Brundtland Report was also important for its promotion of a managed liberalism, or what political economist Steven Bernstein calls a "Keynesian-style compromise".<sup>20</sup> The combination of environmental and developmental goals suggested that governance of both would depend on economic growth, with the "developed" countries assisting and managing while the so-called global South focused on reform. The goal was more socially and environmentally aware economic practices.<sup>21</sup> Thus, sustainable development has been envisioned as a three-legged stool. The environmental or ecological leg requires that human activities respect and maintain the health and diversity of ecosystems, while the economic aspect demands attention to regional economies and adequate incomes for local people. The third leg, the social, is defined as the meeting of basic needs, protection of cultural forms, provision of acceptable governance, and a collective sense of well-being.<sup>22</sup> And as geographer Maureen Reed, who has studied sustainability in B.C.'s forest communities, points out, "during times of environmental and land use change, the social component of sustainability implies the need for changes in the structures, processes, and relationships that characterize community life and that shape relations between rural communities and their urban counterparts."<sup>23</sup>

Many present this relationship as some sort of balance, with equality stemming from the

---

<sup>18</sup> Paterson, "Interpreting Trends," 795.

<sup>19</sup> Bernstein, *The Compromise of Liberal Environmentalism*, 5.

<sup>20</sup> *Ibid.*, 67.

<sup>21</sup> Maureen Reed, *Taking Stands: Gender and the Sustainability of Rural Communities* (Vancouver: UBC Press, 2003), 27-28.

<sup>22</sup> John Robinson, "Defining A Sustainable Society: Values, Principles and Definitions", *Alternatives* 17, no.2 (1990): 36-46.

<sup>23</sup> Reed, *Taking Stands*, 29.

interconnectedness and interdependence of the three legs. But the weighting of objectives within the triad varied from place to place, from time to time. In particular, the notion of sustainable development expressed in 1987 by the Brundtland Commission and even more so as articulated in the 1992 Earth Summit has been described as reformist, with a central focus on economic growth.<sup>24</sup> In 1987, sustained managed growth and development held precedence over environmental protection if the socioeconomic costs of protection were too high for developing countries. This legitimized the trend towards liberal environmentalism, but the compromise would become even more fully expressed in the next major international forum in Rio de Janeiro, where the United Nations Conference on Environment and Development (UNCED) or Earth Summit was held in 1992. UNCED evolved from the reforms that followed Brundtland, but its mandate was far more explicitly linked to the market, emphasizing that free trade and liberal markets were compatible and perhaps even necessary for environmental protection.<sup>25</sup> This liberal environmentalism marks the institutionalization, the serious acceptance of environmental protection as important, but also the embrace of a liberal international order and a market economy for that protection.<sup>26</sup> Thus, growth and the power of the economy were seen as key to sustainable development. Another value supported by UNCED as essential was belief in science and technology. Principle 9 of the Rio Declaration reads, "states should cooperate to strengthen endogenous capacity-building for sustainable development by improving scientific understanding through exchanges of scientific and technical knowledge, and by enhancing the development, adaptation, diffusion and transfer of technologies, including new and innovative technologies".<sup>27</sup> The types of knowledge produced by normative problem-solving structures and the types of change induced by the economy stem from reform of existing elements rather than a revolutionary re-thinking of power and governance.

UNCED also spawned a voluntary action program for sustainable development of forests. This was guided by a list of Forest Principles as part of Agenda 21. It called on governments to establish national forest policies and to ensure the implementation of "principles of sustainability" through these policies. According to the Forest Principles "forestry issues and

---

<sup>24</sup> John Robinson, "Squaring the circle? Some thoughts on the idea of sustainable development." *Ecological Economics* 48 (2004): 369-384.

<sup>25</sup> UNCED, *Rio Declaration on Environment and Development*, Principle #12. From the final text of agreements negotiated by governments at the United Nations Conference on Environment and Development (UNCED), 3-14 June 1992, Rio de Janeiro, Brazil.

<sup>26</sup> Bernstein, *The Compromise of Liberal Environmentalism*, 85-86.

<sup>27</sup> UNCED, *Rio Declaration on Environment and Development*, Principle #9.

opportunities should be examined in a holistic and balanced manner within the overall context of environment and development, taking into consideration the multiple functions and uses of forests, including traditional uses, and the likely economic and social stress when these uses are constrained or restricted, as well as the potential for development that sustainable forest management can offer".<sup>28</sup> Although the Forest Principles do not mention national forest programs specifically, they do reference strategies for national governments at several points, as seen in Table 1.2. These Principles were not legally binding, but they served as a powerful reinforcement for the federal forestry sectors of nations such as Canada.

UNCED and its aftermath also offered an arena in which Canada would take leadership: multilateral forest diplomacy.<sup>29</sup> Sustainable development discourse put a number of specific issues on the UN radar, and deforestation was a major concern, second only to desertification. By taking leadership roles in organizations across the "north-south" divide, such as the Intergovernmental Panel and Intergovernmental Forum on Forests, as well as the Montreal Process for conserving boreal forests, Canada demonstrated its ability to keep abreast of the issues facing the forest sector as well as to continue to assert its perspectives.<sup>30</sup> "Canada leads the world in developing and implementing new approaches to ensure the sustainability of our forests. At the same time, we have succeeded in producing high-quality forest products at competitive prices", commented the federal Minister of Natural Resources. "In many instances, Canada has taken the lead to maintain the momentum following the UN Earth Summit in 1992... Canada is playing a key role in efforts to establish a common vision of sustainable forest management. Through initiatives such as the Model Forest program, Canada has been a driving

---

<sup>28</sup> UNCED, *Forest Principles*, Preamble #3. From the final text of agreements negotiated by governments at the United Nations Conference on Environment and Development (UNCED), 3-14 June 1992, Rio de Janeiro, Brazil.

<sup>29</sup> Brian Hocking, "The Woods and the Trees: Catalytic Diplomacy and Canada's Trials as 'Forestry Superpower'" *Environmental Politics* 5, no. 3 (1996): 448-475; David Humphreys, "The Global Politics of Forest Conservation Since the UNCED" *Environmental Politics* 5, no.3 (1996): 231-256.

<sup>30</sup> The processes of the IPF and IFF are charted by David Humphreys as well as Steven Bernstein; all of these discussions were influenced by the tension between "North" and "South" over inclusion of all forests in agreements as opposed to the targeting of tropical forests only. The end result was a UN Forum on Forests by 2000, but a lack of consensus or action on most substantial issues, such as how to proceed on trade measures. Bernstein points out that global governance of forests is difficult, for it requires action that conflicts with the form of liberal environmentalism institutionalized at the Earth Summit. For example, forests are managed within particular states, but conceived in international environmental governance as a global commons. To take action on conserving them forces questions of sovereignty and free trade to a head.

force in addressing social, environmental and economic challenges both domestically and internationally”.<sup>31</sup>

This sketch of how sustainable development appeared on the world stage should be modified through inclusion of two distinct theoretical considerations; one centring on the role of indigenous peoples in sustainable development discourse, and the other interrogating the scales that are invoked in environmental governance. Critical understanding of a concept such as sustainable development requires interrogation of the roles of culture (people, colonial legacies, difference, etc.) and of governments and scales in Canadian politics.

### **1.3.3. Indigenous peoples, TEK, and sustainable development discourse**

As part of its concern for the interrelation of environment and development issues, the Rio Declaration also contained important statements on the role that marginalized actors such as indigenous people and women must play in change. For example, Principle #22 states:

“Indigenous people and their communities, and other local communities, have a vital role in environmental management and development because of their knowledge and traditional practices. States should recognize and duly support their identity, culture and interests and enable their effective participation in the achievement of sustainable development.”

And Principle #23 follows: “The environment and natural resources of people under oppression, domination and occupation shall be protected.” Chapter 26 of Rio’s Agenda 21 insists that in order for this to occur, the position of indigenous people must be strengthened, and moreover, that there is a close relationship between sustainable development and their well-being.<sup>32</sup> This followed assertions in the Brundtland Commission that “these communities are the repositories of vast accumulations of traditional knowledge and experience that link humanity with its

---

<sup>31</sup> Standing Committee on Natural Resources. “Canada: a Model Forest Nation in the Making. Report to Natural Resources Canada.” Government of Canada, 1994.

<sup>32</sup>Fikret Berkes and H. Fast, “Aboriginal peoples: The basis for policy-making towards sustainable development” in *Achieving Sustainable Development*, eds. Ann Dale and John Robinson (Vancouver: UBC Press, 1996), 204-264.

Agenda 21, the Rio Declaration on Environment and Development, and the Statement of Principles for the Sustainable Management of Forests were the three agreements/statements adopted as a result of the Earth Summit. Agenda 21 is considered an ambitious international endeavour that recognizes environmental issues and encourages full democratic participation in policy-making at the local level. See Susan Buckingham-Hatfield and Susan Percy, eds., *Constructing Local Agendas: People, Place and Participation* (London: Routledge, 1999) for a discussion of Agenda 21’s implications.

ancient origins”.<sup>33</sup> This is clear recognition of the importance of “traditional knowledge.” Indigenous cultural knowledge that is seen to pertain to the environment is most commonly called “traditional ecological knowledge” (TEK). There has been an increasing sense that there must be a concerted process of knowledge integration between TEK and other types of science. The politics of TEK are commonly discussed in anthropological literature, which has done much to examine alternative resource management systems. This literature discusses the many types of knowledge and epistemology variously classified as indigenous knowledge, traditional ecological knowledge, or local knowledge, suggesting that all traditional knowledge is local, but that not all local knowledge is traditional.<sup>34</sup> This knowledge is generally associated with peoples who have a long history of resource use, specifically indigenous societies. Some basic characteristics of TEK emerge across the literature. First is an emphasis on continuity or accumulation over time; this may be expressed as transmission across hundreds of years or across generations.<sup>35</sup> This is often accompanied by recognition of dynamism, that TEK “builds on experience and adapts to change”<sup>36</sup> and should not be seen as static and romanticized.<sup>37</sup> However, there is a binary construction of TEK as opposed to “modern western science” evident in the circumstances of TEK’s current use in resource management. It is important to recognize the cultural value of TEK’s collection and “preservation” for the people who practice it, and its potential for providing a greater voice for those marginalized by colonial relations and processes of “development”.<sup>38</sup> But as Butler suggests, many esteem TEK for what its historical and local qualities can do in combination with mainstream management structures, which are relatively new, externally formulated, and rarely site specific. This dichotomy was debated by anthropologists (including Levi-Strauss and others) as early as 1962<sup>39</sup>; today, TEK is

---

<sup>33</sup> WCED, *Our Common Future*, 114.

<sup>34</sup> Caroline Butler, “Historicizing Indigenous Knowledge: Practical and Political Issues” in *Traditional Ecological Knowledge and Natural Resource Management*, ed. Charles Menzies, (Lincoln, NB: University of Nebraska Press, 2006), 107-126.

<sup>35</sup> Julian Inglis, ed., *Traditional Ecological Knowledge: Concepts and Cases* (Ottawa: International Development Research Centre, 1993).

<sup>36</sup> Fikret Berkes, *Sacred Ecology: Traditional Ecological Knowledge and Resource Management* (London: Taylor and Francis, 1999), 8.

<sup>37</sup> M. Johnson, “Dene Traditional Knowledge” *Northern Perspectives* 20, no.1 (1992): 3-5.

<sup>38</sup> Arun Agrawal, “Indigenous and Scientific Knowledge: Some Critical Comments,” *Development and Change* 26 (1995): 413-439.

<sup>39</sup> Agrawal offers a brief account of the history of this debate. “Levi-Strauss suggested that ‘primitive’ cultures are more embedded in their environments than modern cultures; ‘primitive’ peoples are less prone than scientific investigators to analytic reasoning, that might question the foundations of their knowledge; and ‘primitive’ thought systems are more closed than scientific

increasingly sought out as a solution to the failure of “modern” science to perceive the long-term effects of resource use. Thus, much literature now concerns the integration of TEK and other knowledges in co-management structures. A common focus is the many technical and methodological obstacles to integration caused by the difficulty of collecting TEK, as well as the qualitative differences in form between science and TEK.<sup>40</sup> However, Paul Nadasdy argues that “TEK researchers’ preoccupation with technological and methodological obstacles to knowledge integration have obscured the power relations that underlie the whole process of knowledge integration and co-management”.<sup>41</sup> He asserts that the idea of integration itself takes for granted existing relations between aboriginal people and the state by assuming that TEK is data capable of incorporation into existing structures and of being acted on by resource managers; this means that integration actually concentrates power in administrative centres because it is scientists and managers who elicit and use the new “integrated” knowledge.<sup>42</sup> These sorts of perspectives will be valuable to discussion of the knowledge integration projects performed in the LBMF. Canada, like many other nations, has a significant and marginalized indigenous (First Nations) population. Efforts to involve First Nations in land use planning and research have ranged from minor consultancy to a leading role in co-management effort. As we will see in Chapters 4 and 5, the recommendations of an expert advisory panel in Clayoquot Sound and the presence of an arrangement for co-management in the interim of treaty negotiations gave much attention to Nuu-chah-nulth TEK. Not all other First Nations elsewhere in Canada have had the same experience, and their frustration continues to grow.

#### 1.4 Issues of Scale in Governance

The exercise of power between various institutional and regional scales in resource management policy is also significant here. The political strategies and assertions of First Nations’ rights to land and management are the types of practices that “operate at the interstices of the state system.” Yet the traditional scales of international/national/provincial governance

---

modes of thought” (414). He then goes on to break down these assumptions through an examination of their substantive, methodological and contextual failures.

<sup>40</sup> Peter Usher, “Traditional Ecological Knowledge in Environmental Assessment and Management” *Arctic* 53, no.2 (June 2000): 183-193.

<sup>41</sup> Paul Nadasdy, “The Case of the Missing Sheep: Time, Space, and the Politics of ‘Trust’ in Co-Management Practice” in *Traditional Ecological Knowledge and Natural Resource Management*, ed. Charles Menzies, (Lincoln, NB: University of Nebraska Press, 2006), 129.

<sup>42</sup> Paul Nadasdy, “The politics of TEK: power and the ‘integration’ of knowledge,” *Arctic Anthropology* 36, no.1-2 (1999): 1-18.

remain central to my thesis. Although it is not an explicit concern here, it is necessary to note that scale is a key analytical concept for geographers, who have recently grown more reflexive about regional structures for organizing knowledge about the world.<sup>43</sup> The “production of scale”, as it were, has been described as a highly dynamic process through which power dynamics become spatialized; in this view, scales are not “things” but are historical processes manifest in space. They are increasingly treated as social constructions rather than as fixed, self-enclosed and pre-given containers.<sup>44</sup> The suggestion of geographer Becky Mansfield that scales should not be treated as separate objects that act upon each other may seem to conflict with my approach of tracing ideas about sustainable forestry through various levels of governance.<sup>45</sup> As political scientist Roger Gibbins suggests, however, there still is value in looking past the traditional array of studies on federal-provincial interactions in Canada and into the more rare relationships of federal power to localities. He concludes that intergovernmental politics follow fiscal ties, which are uncommon between Ottawa and municipalities but likely to increase due to globalization.<sup>46</sup> My analysis follows but works differently with the dynamics of scale because although the LBMF experience was significantly negotiated by provincial forestry politics (see Chapter 4), it was also an interesting expression of federal power neither entirely mediated by the Ministry of Forests, nor representing a direct federal-municipal interaction. Most of the issues that arose in the LBMF were regional (stemming from the particular politics of Clayoquot Sound), intercultural, or even interpersonal. This attests to a social “messiness” that modifies and complicates scales in the Model Forest Program. So it must be noted that while I discuss scales of governance in ways that sometimes seem to assume their fixedness, I am aware of the debates surrounding them and of their role in the analysis of environmental governance.

## Conclusion

Ideas about how to best manage Canadian forests have varied widely over the twentieth century. Forests were valued for a dynamic range of considerations. Above all, these

---

<sup>43</sup> John Agnew, “Regions on the mind does not equal regions of the mind,” *Progress in Human Geography* 23, no.1 (1999): 91-96.

<sup>44</sup> Neil Brenner, “The limits to scale? Methodological reflections on scalar structuration,” *Progress in Human Geography* 25, no.4 (2001): 591-614.

<sup>45</sup> Becky Mansfield, “Thinking through scale: the role of state governance in globalizing North Pacific Fisheries,” *Environment and Planning A* 33 (2001): 1807-1827.

<sup>46</sup> Roger Gibbins, “Local governance and federal political systems,” *International Social Science Journal* 53, no.167 (March 2001): 163-170.

considerations have been contingent upon context. The definition of what was to be sustained was predicated on the interaction of pressures (scarcity of supply, ecological change, environmentalist demands, human development concerns) and politics (federal-provincial and international relations) across scales of governance and time. Thus, forest policy making was and still is a complex endeavour. The impacts of resource extraction, be they changes in community life or the loss of a species, have always existed. It is our shifting perceptions and increasingly explicit recognition of these changes in discourse and policy that truly define our relationship to the forest.

## Chapter 2

### Sustainability and Strategy in a Forest Nation

Seek ye first the production of wood and its right use -and all these other things will be added unto it.

#### 2.1 Introduction: A History of Intensification

This statement was the motto of the Dominion Forest Reserve in 1910, yet resonates throughout Canada's long history of forest exploitation.<sup>47</sup> The forest played a large role in shaping early Canada.<sup>48</sup> Forests in the colonial era were viewed as sources of wealth and obstacles to settlement, not as complex places or even as resources requiring careful management. Timber, a "staple" of Canadian economic development, displayed an intensifying pattern of exploitation that changed in character as it expanded over time into new regions, involved new markets, and utilized increasingly sophisticated technology. These changes in markets and technology produced a shifting "exploitation geography" across Canada, one that moved westward with the railroads into the edges of boreal forest in Ontario and Manitoba by the twentieth century. The high infrastructure costs of this export-oriented economy necessitated extensive government involvement, and in the Canadian constitution, control of the timber trade was assigned to Ottawa.<sup>49</sup> According to the British North America Act, authority was divided such that the federal government had responsibility for international affairs, and held all traditional rights in land-"Crown-titled land" and resources on these lands- that remained beyond

---

<sup>47</sup> See notes on usage, p.viii, and Appendix 1 for clarification of the various changes to the federal forest sector's name and mandate over time. The Dominion Forest Reserve was 14,000 square kilometers of land placed under the control of the Dominion Forestry Branch as per the 1906 Dominion Forest Reserve Act.

<sup>48</sup> Arthur Lower, *The North American Assault on the Canadian Forest : a History of the Lumber Trade Between Canada and the United States* (New York: Greenwood Press, 1968).; Arthur Lower, *Great Britain's Woodyard: British America and the Timber Trade, 1763-1867* (Montreal: McGill-Queen's University Press, 1973); Graeme Wynn, *Timber Colony: a Historical Geography of Early Nineteenth Century New Brunswick* (Toronto: University of Toronto Press, 1981).

<sup>49</sup> Joanna Beyers, "The Forest Unbundled: Canada's National Forest Strategy and Model Forest Program, 1991-1997" (Ph.D diss., York University, 1998), 41.

provincial jurisdiction, such as in the territories. Once provinces were established, however, they assumed de facto and legal rights to this land, with the exception of the prairie provinces and the territories, where resource rights were reserved to Ottawa until 1930. After 1930, powers shifted to the provinces. Natural Resource Transfer Agreements between Manitoba, Saskatchewan, and Alberta in 1930 gave those provinces control over their public land, revenues from natural resources, and the same constitutional rights as other provinces.<sup>50</sup> The federal role was thus reduced from actual landholding to coordination of international and domestic objectives, intergovernmental coordination, and research and development. This arrangement remains.

## **2.2. Federal Forest Stewardship in the Twentieth Century**

Against this background of political changes, the scientific management of Canada's forests also shifted. The colonial days were a time of unregulated exploitation. The first regulatory measures in 1806 were instituted not out of concern for the health of forests, but so that governments could receive some revenue from the industry in exchange for the timber harvested on Crown lands. This revenue extraction was structured through a tenure or lease system, with harvesting licences given to the provinces in exchange for stumpage fees and ground rents to Ottawa. By the mid-nineteenth century, New Brunswick and then Upper and Lower Canada had instituted longer term leases of land to allow more continual timber supplies to established sawmill operations as well as the nascent pulp and paper companies.<sup>51</sup>

Thus, the only limits on engagement with the forest at this time were limits of access. This first attempt to control forest exploitation did not concern forest practices or even future supply, but rather sought the sustainability of colonial governments, giving them a "cut" of the profits that timber afforded British North America. Concern for the depletion of forests came, however, as a result of the more intensive pulp and paper industry at the turn of the twentieth century, and of the need to avoid intra-governmental conflict and establish rights over certain areas. It seemed that great quantities of timber were being harvested, yet there was no knowledge of how much remained, and at what rate it could be expected to regenerate.

---

<sup>50</sup> Michael Howlett, "The Federal Role in Canadian Forest Policy: From Territorial Landowner to International and Intergovernmental Co-ordinating Agent" in *Canadian Forest Policy: Adapting to Change*, ed. Michael Howlett (Toronto: University of Toronto Press, 2001): 378-418.

<sup>51</sup> Howlett and Rayner, "The Business and Government Nexus."

### 2.2.1. "A Judicious System for Cutting the Timber Required."

This lack of knowledge threw into question the perpetuity of Canada's timber supply, and served as impetus for a new position in the Department of the Interior-the Chief Inspector of Timber and Forestry. The first to hold this position, in 1899, was Elihu Stewart. He was instructed to ensure the protection and management of federal forests through scientific measures. The Canadian Forest Service considers this appointment its birth-it was called the Dominion Forestry Branch in these early years.<sup>52</sup> Stewart organized a department oriented towards conservation, which he defined as propagation (seedlings and tree planting) and protection (from fires and disease/insects). Conservation was for the sake of the industry above all; it was "a judicious system of cutting the timber required for use so as to retain for all time a continuous supply from those districts that are better adapted for the growth of timber than for agricultural purposes."<sup>53</sup> The first Canadian National Forest Congress, held in 1906 in Ottawa, allowed foresters to meet on these issues as in the United States. From its inception, the American Forestry Association had contained a small Canadian membership, and this correspondence allowed suggestions, support, and new ideologies about the forest to travel across the border. Conservation thrived in Stewart's directives and Forest Congresses, but had even earlier roots in the meetings of lumbermen in eastern Ontario and Quebec, who convened around questions of quality and quantity of annual yields in their forests, and wondered about the limits of resource exploitation as early as the 1870s.<sup>54</sup>

In 1930, the federal government lost its powers over natural resources in the west after the Natural Resource Transfers. But from 1899 until 1930, the forest service had a wide range of lands on which it could undertake conservation measures. It conducted tree planting across the prairies, and firefighting and fire prevention in B.C. and Alberta. The first three Chief Foresters up to 1930 advocated a strong federal role in forestry, and advocated jurisdiction over a more substantial land base. Yet after the Natural Resource Transfer Acts, the very existence of a federal forest service was in question. Budgets and staff numbers were drastically reduced, and the Chief Forester "disappeared and was never seen again"<sup>55</sup> after 1936. Despite the growing

---

<sup>52</sup> See notes on usage and Appendix 1 for changes to the name and departmental orientation of the federal forest service.

<sup>53</sup> Elihu Stewart quoted in Ken Drushka and Bob Burt, "The Canadian Forest Service: Catalyst for the Forest Sector," *Forest History Today* (spring/fall 2001): 20.

<sup>54</sup> R. Peter Gillis and Thomas Roach, *Lost Initiatives: Canada's Forest Industries, Forest Policy and Forest Conservation* (Westport, C.T.: Greenwood Press, 1986). This offers extensive coverage of the early history of conservation and other federal activities in the Canadian forest.

<sup>55</sup> Drushka and Burt, "The Canadian Forest Service."

political power of the provinces and their dominance over most affairs of the forest, the federal forest service was saved by its scientific capabilities.<sup>56</sup> Forest regeneration and continual timber supply remained concerns, and so the research conducted in the federal laboratories and plots was considered valuable. The Forestry Service continued to lobby for increased funding and to have its role enshrined in legislation. In 1949, the Canada Forestry Act reinforced the Service's responsibilities and supported its activities.<sup>57</sup> By this time, signs of forest depletion showed in federal inventories. Addressing this depletion required a new level of intergovernmental cooperation, and federal research was key in charting a course of action. The research reputation continues to define today's Canadian Forest Service, although over the years; the values that drove that research have shifted.

### 2.2.2. Sustain(ing) yield: "Forestry is an art born of necessity."

The first Dean of Forestry at the University of Toronto composed a history of forests in 1913, writing that, "only when a reduction in the natural supplies of forest products, under the demands of civilization, necessitates a husbanding of supplies...does the art of forestry make its appearance."<sup>58</sup> Inventories showed evidence of a "reduction in supplies" from as early as the 1930s. But it was not until the "interventionist atmosphere" of World War II, in which Ottawa took control of production and pricing, and funded numerous research initiatives, that concerted action was taken on new plans for forest sustainability.<sup>59</sup> Royal commissions into the status of forest productivity took place in many provinces; the Sloan Commissions of 1945 and 1956 are examples in B.C. More important than the perception that forests might be depleted, however, was the impact of that possible depletion on the economy and on communities across Canada. Without management of the yields of the forest, prosperity seemed to come and go without

---

<sup>56</sup> Ibid.

<sup>57</sup> Gillis and Roach thoroughly document the struggles of the Forest Service from 1930-1949 to have their role sanctioned in this manner; see *Lost Initiatives*, 237-248. This Act was a "high-water mark" in that it "provided for national forests and forest experimental areas; it sanctioned the forest products laboratories; it enabled the federal government to offer assistance to provinces and private owners in protection and development of forestlands with a view to the conservation and advantageous utilization of forest resources; and, finally, the Act authorized negotiation of agreements with provinces for forest protection activities, inventories, silvicultural research and other forestry work" (248).

<sup>58</sup> B.E. Fernow, *A Brief History of Forestry in Europe, the United States, and Other Countries* (Toronto: University of Toronto Press, 1913): 2.

<sup>59</sup> Michael Howlett, "Policy Regimes and Policy Change in the Canadian Forest Sector," in *Canadian Forest Policy: Adapting to Change*, ed. Michael Howlett (Toronto: University of Toronto Press, 2001), 3-22.

stability. For communities where the majority of residents held forest-related employment, “it was believed that a steady supply of wood was the essential factor necessary for long-term community and economic stability.”<sup>60</sup> The solution was “sustained yield”, or the regulation of the annual rate of harvest such that there could be a continuous, even flow of timber supply on a crop-rotation basis (to be discussed in more detail in Chapter 4).

These provincial commissions on the status of timber supply are significant because they represented a shift in governmental ideas about the value of forests and how to manage them. The federal government had been the source of ideas about forests for the first half of the twentieth century; it organized the Forest Congresses and conducted conservation research, although this is not to deny the primacy of provincial and industrial powers in the forests. Conservation existed, after all, to ensure adequate supplies of timber for the industry. The transition from a smaller-scale lumber industry to the capital-intensive production of pulp and paper had led to “ever-increasing problems in matching the supply and demand of timber over both the short and the long term”<sup>61</sup>. The research of the federal forest service was intended to remedy that mismatch, and gave it a certain degree of power. Political scientists consistently point to the minimal federal role *politically* in forests after 1930, but the Forest Service held continued salience *scientifically* as a source of ideas about how to manage the forest; their job was to see it “for the trees” in a time when most saw it as units of board feet or fibre.

The nature of this cooperation in provincial commissions was such that federal foresters were consulted during the commissions for their scientific expertise, and contributed to decisions about appropriate harvesting and regeneration rates. These commissions concluded that both new forest practices as well as regulatory measures (changing aspects of tenure such as lease length) were the solution. Those changes were administered at the provincial level, so despite the role that federal forest knowledge did play, the notions of what was to be sustained in sustained yield were mediated by the particular jurisdictions, powers, and perspectives of the provinces. This meant that issues important to the provinces, such as corporate concentration and employment in industry, were central. The forest was, from the 1950s to the 1980s, treated much like a factory in management. It was valued not for its integrated totality as an ecosystem, nor as a habitat or home to indigenous forest peoples. The forest was, for most purposes, an economy, and that was the object of sustained yield.

---

<sup>60</sup> Dellert, “Sustained Yield,” 255.

<sup>61</sup> Howlett and Rayner 2001, “The Business and Government Nexus: Principal Elements and Dynamics of the Canadian Forest Policy Regime”, 26.

Thus, Canadian forests were historically managed for efficient use and exploitation rather than what we might call stewardship. More crudely put, the various regulatory efforts of the late nineteenth and early twentieth century were directed to managing the *exploitation of forests* rather than the forest itself, to sustaining processes of extraction. Even as conservationist ideas cast their way north from the long shadow of Gifford Pinchot and the U.S. Forest Service, they underpinned a sense of sustainability centered on productivity and on the timber industry. It was not until after World War II that concern for the economy in terms of employment and community stability became a key part of the package. Even then, the primary concern was for “the production of wood and its right uses.” Explicit attention to environmental dimensions came even later, by the 1980s; especially when B.C.’s vast clearcuts, visible from outer space, drew worldwide attention to Canadian forest practices. As a result of various pressures, the meaning of “sustaining” Canadian forests became increasingly multifaceted over the latter half of the twentieth century. The federal forest sector’s manifestations of sustainable development discourse, that is, the things it said and did to enable continual flows of timber from its provinces, came to encompass a whole host of additional values. Sustained yield did not ultimately work to sustain the forest economy (this failure will be discussed in Chapter 4), so new solutions were necessary. This put pressure for a solution on the federal forest sector (the longstanding source of much scientific research). As the challenges of sustainability grew in scope and complexity, the federal forest sector was forced by other governmental sectors and industry alike<sup>62</sup> to produce a series of coherent policy statements, or National Forest Sector

---

<sup>62</sup>Science Council of Canada. “Canada’s Threatened Forests: a Statement by the Science Council,” Government of Canada, 1983, 6.; and Howlett, “The Federal Role in Canadian Forest Policy.”

Through the 1970s, organizations such as the Science Council of Canada and the CCREM (Canadian Council of Resource and Environment Ministers) warned that “vast areas of potentially productive forest are now inadequately stocked with trees; local shortages of wood have developed in every province and the problem of long-term wood supply at a reasonable cost is the most important issue facing the [Canadian forest]sector” The aim was still to ensure long-term availability of timber for industry, but the federal government was encouraged to moderate its usual industrial boosterism with support of both biological and industrial forest research. It was suggested that the federal forestry service increase its research expenditures “to a level comparable with Canada’s most serious competitors”, to expand its resource and staff base, and to change its funding procedures to “reflect the need for stability and continuity in forest research” (Science Council, 10). The US appeared as a cost-effective competitor, as well as a better place for new investment. And as the composition of stands and overall forests changed, management would need to change to maintain the central role that forests had previously played in Canada’s economic growth.

Strategies. It also would attempt, through the first two Strategies, to carve out more power for itself.

Pressures converged on the federal government for several reasons. First, the federal forest service was weak and conflicted, having changed name and structure countless times by the 1980s. This weakness was not sustainable, because nations with which Canada competed in the international forest products economy, such as the U.S. and Sweden, had strong federal forest services and well-organized research programs. Thus, a stronger federal forest service would allow better research on the forest, and ultimately a stronger ability for Canada to extract forest resources wisely, which would strengthen the economy of the forest nation. Another external pressure came from environmental groups, both in Canada and around the world (the influence of environmental movements on forest policy will be discussed in Chapter 4). The federal government was the authority on international trade and diplomacy. This meant that it needed to be able to ward off not only competition but also any criticism that could impact consumer demand for Canada's forest products. In the face of challenges to Canada's forest economy, the federal forest service was another "value" to be sustained. The strategies that it produced in the 1980s were thus as concerned with buttressing the federal role in forests and funding federal research as they were with sustaining timber yield and the economy.

### **2.3. Stewardship and Strategy: 1981-1987**

The first National Forest Sector (NFS) Strategy of 1981 was a discussion paper that suggested that forest policy "was to be explicitly recognized as part of federal economic development priorities, which included a renewed emphasis on natural resource exploitation."<sup>63</sup> The forest service did not try to change the division of power over forests at this stage, but did emphasize the importance of its research role. In the five years after this Strategy was released, committees and task forces caused a quadrupling of federal forest research expenditures to over \$1 billion from 1985-1990.<sup>64</sup> This research was valued because it produced knowledge about the forest that would in turn produce the most efficient yet sustained yields. Recession in late 1970s and early 1980s made national economic development a key priority, and forest products were an important component of the economy. So in 1981, the goals for sustaining forests were similar to those of the previous years.

---

<sup>63</sup> Canadian Forestry Service, *A Forest Sector Strategy for Canada* (Ottawa: Ministry of the Environment, 1981); Howlett, "The Federal Role in Canadian Forest Policy," 389.

<sup>64</sup>Howlett, "The Federal Role in Canadian Forest Policy."

By 1987, the release of the next Strategy, there was a shift in language and priority. The 1980s heralded a "climate of consultation" in Canadian forest policy, with unprecedented networks between environmentalists, industrial representatives, and government officials. In this new climate, the federal government formed the Canadian Council of Forest Ministers (CCFM), a committee focused only on forest issues. The CCFM grew from an ad hoc meeting of federal and provincial ministers and their advisors into an "institutionalized forum for policy discussion and coordination" by 1985.<sup>65</sup> Composed of fourteen federal, provincial and territorial representatives, with a secretariat from the forest service, it seeks to raise the profile of forestry, to increase awareness of forest sector issues, and to develop a consensus on approaches to problem solving and the embrace of new opportunities.<sup>66</sup> Its initial mandate was "to *increase benefits* from the forest industry as well as *increase the number and range of benefits that can be derived from the forestland base*".<sup>67</sup> Through this sort of discourse more attention is given to sustaining the actions, processes and extractions that characterize the development and increased use of the resource than to sustaining the resource itself. The federal forest sector aimed first to sustain itself and its precarious stance, then to buttress the competitiveness of the forest economy.

However, a sense of multiple benefits was evident in 1987 that was not present in 1981. The input of multiple voices on best use of the forest became explicitly valued as well in 1987. Through the CCFM, Ottawa funded a series of forestry fora around the country in 1985-1986. Industry officials, politicians, labour representatives, academics and other interested parties were invited to share ideas about the future of Canadian forest policy, although final reports were under the control of senior officials. The recommendations produced by the fora were presented at a 1986 meeting of the National Forest Congress. The goal was a second NFS strategy, intended to be more definitive than that of 1981. Early discussions advocated an expanded federal role in industrial development and forest management, and indicated that this role should be cemented in legislation. The forest service was "to undertake actions to meet several national strategic aims within the next 5 years", one which "advances particularly the need for continued commitment to the principle of *sustained resource development* (emphasis added) for the production of timber and other benefits of the forest."<sup>68</sup> The Strategy also addressed trade and

---

<sup>65</sup> Hessing *et al.*, *Canadian Natural Resource and Environmental Policy*.

<sup>66</sup> Canadian Council of Forest Ministers, *A National Forest Sector Strategy for Canada* (Ottawa: Ministry of Supply and Services, 1987).

<sup>67</sup> CCFM, *A National Forest Sector Strategy*.

<sup>68</sup> *Ibid.*, 1.

investment, forest management, research and development, and public awareness, but did not see it useful to change the powers of the federal forest service. "Despite having begun a process of policy development aimed at increasing the federal role in forest policy, the government ended up with a document limiting the federal role to forest research, export enhancement, and most important, continued funding for provincial forest management efforts, without any input into the establishment of these programs."<sup>69</sup> There were suggestions for future plans to increase the federal role, but these did not come with specific directions for implementation, and the provinces continued to assert their authority in their usual arenas of control.

In 1987, the existence of the federal forest sector was not in question as it had been in the 1930s, and it had clear authority in areas of trade and international affairs. Yet attempts by the CCFM to expand the federal role in the 1987 Strategy had proven fruitless and further effort did not seem worthwhile. In 1987, the door of increased domestic involvement in the forests closed, but the Brundtland Commission opened another. The opening that sustainable development discourse offered was a new route to federal salience, and one that seemed tailor-made. Sustainable development was an international concern, and impacted trade, international relations, and research agendas—all domains of the federal government. Moreover, Ottawa and the forest service were learning from the various challenges of the 1980s. The federal government was becoming more able to communicate (or at least insinuate that it was communicating more readily) with its public and between levels of governance about natural resource management issues. Its preoccupation with sharing provincial turf thus lessened, the Forest Service turned to responding to criticisms of Canadian forest practice and policies through improved research and publicity. As a result of this new focus, it came to recognize the forest as an ecosystem in an environment, not just a factory, and became a defender of the multiple values of the forest to Canadians and the world.

#### **2.4. The Forest as Economy and Environment**

The release of Canada's Green Plan for a Healthy Environment in 1990 provided an arena in which Forestry Canada could display its new role. This plan was a Ministry of Environment creation, but involved Forestry Canada in implementation of the Model Forest Program. It also offered insight, as political scientist Kathryn Harrison has argued, "into the

---

<sup>69</sup> Hessing *et al.*, *Canadian Natural Resource and Environmental Policy*, 69.

limits of the environment as a political issue.”<sup>70</sup> The Green Plan resulted from public demand for governmental action on the environment, and was an ambitious five-year “environmental agenda” for Canada. The environment minister announced that public consultations would be held cross-country to guide the development of the Green Plan. These consisted of 41 information sessions attended by a total of 6000 people, two-day consultations in 17 cities with 3500 people, and a “wrap-up” session in Ottawa attended by about 400 stakeholders. When released in December 1990, the Green Plan received a mixed reception. Reportedly, the strongest opposition came from the ministers of Finance, Industry, International Trade, and the Treasury Board. But industrial interests as well as the provinces ultimately saw many of their worries allayed, largely due to the limited role of regulatory programs in the Plan.<sup>71</sup> There were promises to “cap” sulfur dioxide emissions by 1994, to extend acid rain control to the western provinces, and to stabilize greenhouse gas emissions by 2000, but no financial commitments were attached to individual initiatives. For its emphasis on new national parks, research centres, environmental monitoring and education, the Plan provided more local benefits, or as Harrison puts it, the type of programs that “win friends”; the lack of specific price tags also permitted a series of publicity-friendly programs. By using its “spending instrument” to address public environmental concern yet avoid blame associated with regulation, the federal government managed to spend on the environment without imposing costs where they would trigger intergovernmental backlash. The environment had become an arena of concern for Canadians, but economic priorities were still paramount.

When it speaks directly to forest management, the Green Plan’s stance is that “Canada’s goal is to shift the management of our forests from sustained yield to sustainable development...the global forest community faces unprecedented challenges over the coming decades, and Canada has obligations and opportunities to demonstrate international leadership in the manner in which forests are managed.”<sup>72</sup> It also links leadership and sustainable development, indicating that “the Government of Canada is prepared to show leadership on environmental matters...” and that this leadership is possible through informed decision-making resting upon “high-quality environmental science, education and information. Scientific and

---

<sup>70</sup> Kathryn Harrison, *Passing the Buck: Federalism and Canadian Environmental Policy* (Vancouver: UBC Press, 1996), 121.

<sup>71</sup> Peter Morrison, “Canada’s Green Plan: An Expression of the Popular Will?” in *Shades of Green: Environmental Attitudes in Canada and Around the World*, ed. Alan Frizzell and Jon Pammett (Ottawa: Carleton University Press, 1997), 55-74.

<sup>72</sup> Environment Canada, “Canada’s Green Plan: Canada’s Green Plan for a Healthy Environment,” (Ottawa: Minister of Supply and Services Canada, 1990), 61.

technological research and development provide the basis for our understanding of the problems and our efforts to find workable solutions.”<sup>73</sup> This mandate found further expression in a subset of the Green Plan, the Partners for Sustainable Development Program. This program provided funding for improved monitoring and biotechnology for forest research, and for a network of model forests in 1991.

Analyses of the Green Plan in general have focused on how well it did or did not function as a comprehensive environmental strategy for Canada, in a sense comparable to the NFS Strategies for the forest sector. Both included efforts to involve the public and reflect its desires. In each case scholars have questioned the participatory character of the exercise and wondered if it truly matched the aspirations of Canadians.<sup>74</sup> This questioning, while valid, demonstrates a certain tendency to project values and expectations back in time; assuming that the same opportunities and political climate that permit citizen participation in decision-making processes today also existed in 1990. Regardless of how they utilized public input, the Green Plan and the National Forest Sector strategies are also of interest here because they are artifacts or representations; they signal how the federal government defined and worked with sustainable development in its forests across a decade. Moreover, this was a decade marked by challenges to traditional authority in natural resource management. There was a constantly changing and increasingly complex sense of what best stewardship of forests entailed. The Plan and Strategies embraced sustainable development as a “win-win” situation, that it was possible to reduce or even eliminate trade-offs between environmental protection and human development. This is the compromise of liberal environmentalism discussed in Chapter 1. The assumption explicit in both documents is that if the environment is managed appropriately, both it and the Canadian population will remain healthy, and that continued economic growth is not only possible, but perhaps even necessary for environmental protection.

## **2.5. The Forest as Ecosystem**

A revised NFS Strategy and a formalized Canada Forest Accord (1992) formed what political scientists have called “the sustainability sub-agenda.”<sup>75</sup> This sub-agenda is significant because it was a coherent package of ideas about what sustainability meant in Canada’s forests. The 1981 and 1987 strategies had also been aimed at the deliverance of a clear policy statement,

---

<sup>73</sup> Environment Canada, “Green Plan,” 17.

<sup>74</sup> Harrison, *Passing the Buck*; Morrison, “Canada’s Green Plan”; Beyers, “The Forest Unbundled”; Howlett, “The Federal Role in Canadian Forest Policy.”

<sup>75</sup> Hessing *et al.*, *Canadian Natural Resource and Environmental Policy*.

but they ultimately represented steps towards that statement rather than an end unto themselves. What accounts for this difference may be experience. Sustainable development diffused widely into political and popular discourse after the Brundtland Report, yet naturally took some time to settle into and influence decision-making processes. In response to the various pressures previously described, the federal government gradually built a more sophisticated conception of what sustainable forest management meant. Elements of the older, industry-oriented paradigm remained, and economic issues still foregrounded discussion. However, the 1992 Strategy spoke to the complexity of ecosystems and the interrelationships that composed forests, and did so with a startling sense of direction.

The 1992 Strategy bears both similarities and divergences from that of 1987. In 1992, the federal government reiterated that it was trying to play coordinator, invoking the need for intergovernmental negotiation and consensus building. The minor public consultations associated with its development also resemble those of 1987. But there are “new ecological colours”- acknowledgement that the forest ecosystem has value unto itself. For example, rather than viewing wildlife as just another objective to be integrated into timber management, the 1992 Strategy discusses the integrated totality of the forest ecosystem and of its long evolution. An expanded focus on socioeconomic aspects is also of interest here, including acknowledgement of the need to include the public in planning processes. The Canada Forest Accord, a terse summary of these principles, states that “Canadians will, in full knowledge of the environmental, economic, social and cultural values of the forest, participate in setting objectives for managing the resources.”<sup>76</sup> This was a much stronger commitment than in 1987. The recognition afforded First Nations was also significant. “Forest management in Canada should recognize and make provision for the rights of Aboriginal peoples who rely on forests for their livelihood, community structure and cultural identity...self-sufficiency of First Nation communities through economic development requires increased access to resources, business and the preservation of traditional activities.”<sup>77</sup> With increased demand for access to resources, cultural rights, and land, Canada’s aboriginal peoples could no longer be easily written out of the forest sector. While these differences in approach were incremental, they represented a growing sense of the complexity inherent in managing forests, not just as sources as timber, but as places located in richly drawn cultural and social landscapes. The nine directions of the 1992 Strategy speak to this; unlike the

---

<sup>76</sup> Canadian Council of Forest Ministers, *Sustainable Development: a Canadian Commitment* (Ottawa: Forestry Canada, 1992).

<sup>77</sup> CCFM, *Sustainable Forests*, 3.

directions in previous Strategies, they are highly interrelated and together present a strong sense of the forest as an ecosystem. That ecosystem includes humans, not simply as actors that may deforest or regenerate it, but as components whose economic, cultural, and social wellness is inextricably bound up with changes in the physical landscape.

Despite this attention to complexity, the 1992 Strategy still defends continued use of traditional industrial practices. It is generally supportive of industrial practices such as clear-cutting even as it acknowledges the controversy surrounding them. This juxtaposition of emergent ecological consciousness and industrial values is typical of its tone.<sup>78</sup> “Sustainable development expands the principle of sustained timber yield...by including fish and wildlife habitats, watersheds and hydrological cycles, as well as gene pools and species diversity.”<sup>79</sup> Like its predecessors, the 1992 Strategy still begins and ends with timber yield. Ecology is evoked in a way that does not conflict with the primacy of the forest as industrial; aspects such as watersheds are essentially “add-ons” even when the language of the document suggests an understanding of interconnectedness. The Strategy also is just that—a tactical plan to strengthen both the federal role in forests and Canada’s reputation as a forest nation. Canadian representatives came armed with the Strategy and Accord to UNCED in the same year. Their demonstration of how to make national forest policies was the impetus for the creation of the Forest Principles, and according to the preface of the 1998 Strategy, “[resulted] afterwards in addressing all relevant forest-related commitments stemming from the UNCED.”<sup>80</sup> However inflated these claims to influence may be, the NFS Strategy was the substantive basis for the major role that Canada played in UNCED’s forest initiatives.

Ten years after Brundtland, Canadian forest policy would have a much more nuanced engagement with sustainable development, at least on paper. Yet the business of timber still ruled in the provinces, where regulation occurred. Voluntary plans remained Ottawa’s way of expressing its sustainable development mandate through the 1990s. Initiatives to actually measure sustainable forest management, such as criteria and indicators (C&I) systems, emerged slowly, but these are still being revised, and quantifying socioeconomic facets of sustainability remains difficult within this framework. Although these efforts were incremental, they were loudly and strategically promoted. In 1994, A Standing Committee on Natural Resources

---

<sup>78</sup> Beyers, “The Forest Unbundled.”

<sup>79</sup> CCFM, *Sustainable Forests*, 4.

<sup>80</sup> Canadian Council of Forest Ministers, *Sustainable Forests: A Canadian Commitment: National Forest Sector Strategy 1998-2003-National Congress Version* (Ottawa: Canadian Forest Service, 1998).

described Canada as “ a Model Forest Nation in the Making” and offered a number of recommendations to the federal government. These included the recommendation “that the federal government...strive to consolidate the communications strategies currently employed in international markets into a single and effective campaign to promote Canada’s forest management practices abroad”; and the reminder that “it is absolutely vital that the positive message of Canadian forestry go out to overseas markets, so that the world can discover that Canada’s forestry practices are as enlightened as anywhere else.”<sup>81</sup> The Model Forest Program, in their opinion, would help the world see Canada as a “model forest nation.”

## **2.6. Conclusions on Sustainability and Strategy**

Clearly, sustainable development discourse had immense significance in federal forestry between 1981 and 1992, and spurred creation of the Model Forest Program. This chapter has examined shifts in definition of sustainable development over that time, as well as earlier. It is also evident that engagement with sustainable development was entangled with the federal forest sector’s own quest for significance. As the Standing Committee on Forests and Fisheries stated in 1990, close partnerships in action and a coherent national strategy were essential to the success of sustainable forest management. This did not necessarily mean new relationships, but did signal intergovernmental harmony and a real shift away from a past pattern of federal obsession with the role of the forest service. In a sense, the provinces were left to work away within their jurisdiction, while Forestry Canada tried to build itself through an attachment to international discourse around sustainable development. International publics and governance structures assumed a growing interest and involvement in resource use and its implications, vastly complicating the patterns of relationships which environmental diplomacy in its various forms have generated. This “growing interest” manifested itself across both polite politics of boardrooms and blockades of logging roads by screaming protestors. These experiences, however traumatic, conditioned Ottawa and its forest service. An increasingly sophisticated grasp of these challenges is evident between the 1987 and 1992 Strategies.

Yet the federal forest sector did not want to compromise a certain “lifestyle” of forest exploitation. Despite the very real changes to its strategies, Ottawa’s position on forest management would remain innately reformist, mostly avoiding questions of power and exploitation. It also was a government-based conception of sustainability forged through the fires

---

<sup>81</sup>Standing Committee on Natural Resources, “Canada: a Model Forest Nation in the Making,” 45-46.

of federal-provincial interactions and then through international-domestic issues. It was not the same as a position on sustainability made from the social and personal experiences of places such as Clayoquot Sound. Much of the change was discursive, rendering the extraction of timber more palatable and intelligent while little looked different "on the ground." For example, aboriginal issues in Canada had yet to appear in environmental and natural policy documents with acknowledgement of the intrinsically cultural elements of forest management. The 1992 NFS Strategy's and Model Forest Program's efforts to involve First Nations, however sincerely they may have been intended, occurred in safe, limited ways that did not confront any entrenched privileges. This "incrementalist agenda" allowed for change and some discomfort, but given the limits of federal powers, did not force the forest industry to acquiesce to strict regulation. Patches of experimental space like those in the Model Forest Program sprouted, but were isolated and championed in a world where much remained the same. The federal government's experience with sustainable development was one that lent it openings while also reflecting its limited authority. Changes had come to Canadian resource management by 1991, and any forester would certainly argue that the days of unregulated harvest were distant past. Yet words from 1910 still held currency. "Seek ye first the production of wood and its right use- and all these other things will be added unto it"-however linguistically dated, this motto could well emblemize the National Forest Sector Strategies and the Model Forest Program.

## Chapter 3

### More Than Just Trees? The Canadian Model Forest Program

#### 3.1. (Not Such?) Strange Bedfellows: Partners in the Sustainable Development of Forests

By 1991, shifts in popular discourse and public awareness meant that export-oriented nations such as Canada could no longer govern solely for the production and marketing of timber products. They also needed to consider their forests (as ecosystems and as non-renewable resources) and the people affiliated with them (workers and all others caught up in the changing socioeconomic geographies of resource-dependent nations). Efforts to include public participation in policy had been part of Canada's National Forest Sector Strategies during the 1980s, but these were essentially bureaucratic responses to changing times and reflections of the desire of Forestry Canada to stay abreast of shifts in the politics of forest management as they were transformed by the growing purchase of sustainable development discourse. In December 1990, the federal government announced a program called "Partners in the Sustainable Development of Forests" as part of the national Green Plan. Intended to shift forest management from sustained yield to sustainable development, this program consisted of three main initiatives funded for a five-year period with a \$100 million budget.

The Enhanced Science and Technology Program (with a budget of \$33 million) was intended to accelerate forestry research to produce "a new array of environmentally sound management techniques and strategies". An initiative known as IBIS (Improved Bio-monitoring and Information Systems) with a budget of \$13 million was to expand technical information available on Canada's forests for monitoring networks and databases. The establishment of a network of Model Forests, or "working models of sustainable forestry in each of the major forest regions of Canada", was the third major component of this program. It was allocated the largest share of the Partners Program budget: \$54 million.<sup>82</sup> The network was also intended to demonstrate the variety of values that a forest could have, "such as wildlife, biodiversity, watersheds, fisheries and carbon pools, in addition to the essential component of fibre or timber".<sup>83</sup> The federal minister of forestry, Frank Oberle, announced a national competition for

---

<sup>82</sup> Forestry Canada, "Background information and guidelines for applicants-Canadian Model Forest Program." (National Advisory Committee on Model Forests: Government of Canada, 1991).

<sup>83</sup> Forestry Canada, "Background information and guidelines for applicants-Canadian Model Forest Program."

proposals from those interested in establishing a Model Forest with a December 1991 deadline. From the proposals, an Advisory Committee would select finalists to represent eight of the major forest regions of Canada as well as the various types of land tenure and uses.<sup>84</sup> The final selection was ten forests. These collectively covered nearly six million ha. of forestland and involved some 250 different groups.<sup>85</sup> Given this diversity, Model Forests would require collaboration between federal and provincial governments as well as among local stakeholders such as First Nations communities, industry interests, and local residents. This chapter will evaluate just how collaborative Model Forests were, as well as interrogate the success of their scientific research and communications networks, examine the role of First Nations, and finally locate the Model Forest effort as a strategy and as an expression of sustainable development.

The 1991 guidelines described the model forest concept and outlined how these areas were expected to function with regards to partnerships, management concepts and structure, communications and technology transfer, and funding. Table 3.1 lists the attributes of model forests as envisioned in these early planning stages. Taken together, the background information and guidelines to applicants elucidated sustainable development policies wedded to certain notions of Canadian forest identity, that were to be promoted through a network of forestry conferences, as well as by informational leaflets, and more.<sup>86</sup> Central among these notions were productivity and stewardship. In the end, were the Partnership Committees truly balanced among many stakeholders? It is claimed that "no one interest group monopolizes the program and each partner works in cooperation with and learns from the other partners in the group".<sup>87</sup> One of the most important selection criteria listed in the call for proposals is "balance between differing objectives". But the primacy of timber interests in nearly every Model Forest cannot be denied.

---

<sup>84</sup> Forestry Canada, "Canada's Model Forest Network: proposed sites," (National Advisory Committee on Model Forests: Government of Canada, 1992).

<sup>85</sup>; Forestry Canada, "Model Forests: summary of proposals," (National Advisory Committee on Model Forests: Government of Canada, 1992); Hugh Walker Consulting Enterprises, Ltd, "First Nation participation in Canada's Model Forest Program 1992-1997: accomplishments and opportunities." (A report prepared for the Enhanced Aboriginal Involvement Initiative of Canada's Model Forest Program: Saskatoon, S.K, 1998).

<sup>86</sup> National Strategic and Operations Committee (NSOC), "Canada's Model Forest Program," Leaflets made for NSOC Briefing on Strategy. (Canadian Model Forest Network: Government of Canada, 1999).

<sup>87</sup> CMFN, "Model Forest Program: year in review 1992-1993." (Forestry Canada: Government of Canada, 1993); CMFN, "Building partnerships for sustainable forest management-Information leaflet," (Canadian Forest Service: Government of Canada, 1996).

“Some form of exploitation and the harvest associated with it was a given”.<sup>88</sup> It is also telling to compare those sites selected for the program with other possibilities in their forest region. Many contenders had a strong adherence to a range of values, and were not dominated by industry. Some of the choices of the Advisory Committee do not seem to correspond with the key objective of balanced interests presented in the call for proposals.<sup>89</sup> Instead, they seem to have selected proposals that promised high-technology deliverables,; for example, computerized decision support systems in the McGregor and Foothills Model Forests. In the McGregor, Prince Albert, Foothills and Lake Abitibi sites, private sector companies organized and led the development of initial proposals, and some of these also had their office space under the company’s auspices.<sup>90</sup>

Joanna Beyers has written on the Model Forest Program<sup>91</sup> to the effect that Model Forests did not “alter the timber extraction paradigm.”<sup>92</sup> A thesis that surveyed Model Forest management in 1999 commented that Model Forests had “yet” to significantly influence the transition to sustainable forest management in Canada.<sup>93</sup> Internal evaluations of the Program also concluded that Model Forests did not have much impact on external communications and technology transfer. Despite the intent expressed in program documentation, knowledge produced in these “laboratories” did not diffuse into the larger world of policy in on any broad scale. Here,

---

<sup>88</sup> Joanna Beyers, “Model Forests as Process Reform: Alternative Dispute Resolution and Multistakeholder Planning,” in *Canadian Forest Policy: Adapting to Change*, ed. Michael Howlett (Toronto, University of Toronto Press, 2001), 201.

<sup>89</sup> In New Brunswick, a Submission #47 titled “St. Mary’s-Liscomb” was trumped by the successful Fundy Model Forest; Beyers questions the wisdom of this choice by pointing out that St. Mary’s-Liscomb had the same attributes as the Fundy proposal: it aimed to increase timber production; its scientific program was well-connected to regional institutions. However, it also planned to work heavily from a co-operative model in the area and was not dominated by industrial partners like Fundy. In Newfoundland, the Western Newfoundland Forest was chosen out of a number of proposals; however, if its application is read closely, it seems primarily concerned with the excessive harvesting of woodfuel by area residents and with rehabilitating the image of the timber company there. While it does add key boreal representation to the Program, it is located in an area of old-growth and possesses a limited partnership structure. The Manitoba Model Forest has provincial land leased to a paper company, provincial forests and multi-use parklands, a wilderness area, numerous municipalities, private agricultural land, woodlots, and aboriginal reserve land-like the LBMF, it is an extremely diverse space. Yet the McGregor Model Forest is a single 180,000 ha. Tree Farm, and the Bas Saint Laurent Model Forest is entirely privately owned by a timber corporation and hundreds of woodlots.

<sup>90</sup> Forestry Canada, “Model Forests: summary of proposals”.

<sup>91</sup> Beyers, “The Forest Unbundled”; Beyers, “Model Forests as Process Reform.”

<sup>92</sup> Beyers, “The Forest Unbundled”, 139.

<sup>93</sup> Angela Bidinosti, “Understanding Forest Values: Canada’s Model Forest Program” (master’s thesis, University of Manitoba, 1999).

however, I am less interested in the outcome of Model Forests as process reform than in how a discourse of sustainable development enframed certain ways of collecting and using knowledge in Canada's forests, and how this program reflected that. Although human issues such as development and poverty have been explicitly and officially linked to the environment since the Brundtland Commission, the enmeshing of cultural and natural phenomena was spoken about far more often and more loudly than it was put into practice in the early 1990s. Although a range of social and cultural values were written into the Model Forest Program, it was centrally concerned with the importance of science, and continued to depend on many standard ways of mapping and knowing the forest landscape.

On paper, the Model Forest Program was shaped by forest research; its forestry activities were to be conducted with increasingly high-technology materials and machines. Materials pertaining to the Model Forest Program's inception and development<sup>94</sup> contain numerous references to the need for "cutting edge" scientific research in the move towards sustainability, and stress the role of Model Forests as "living laboratories" in which the best new practices might be developed and tested. This proposed use of funding, as in the other Green Plan programs, allowed Forestry Canada to present a benevolent, objective, and financially generous face in communities across Canada. The federal government's search for a safer, more neutral position on contentious natural resource management issues was expressed through its insistent alignment with the objective mantle of science in the Model Forest Program. This was precisely the kind of project that Forestry Canada might have been expected to create, given its mandate in relation to provincial forest powers. Its limitations and troubles reflect, in large degree, the constrained federal role in Canada's forests.

But "on the ground", where it intersected with the politics and people of particular places, the Model Forest Program mandate was infinitely more subject to interpretation and contestation than those who framed it ever envisaged. Were Model Forests really neutral laboratory spaces, and what happened within their boundaries? What did these boundaries symbolize and say about federal visions of sustainable development in Canada's forests?

---

<sup>94</sup> It should be noted that most of this material was either produced for the public and/or largely promotional in nature; I was unable to access internally strategic documents from Forestry Canada and thus am inferring from the nuances of those documents that I could find. These materials are available in print at the B.C. Ministry of Forests library, Victoria, B.C., as well as online in a publicly accessible database at the current Canadian Model Forest Network website.

### 3.2. Model Forests: A New Structure of Representation

Model Forest Program documents reiterated that new management strategies were required to bring "interested parties" into processes that traditionally involved only the stakeholder of the territory being logged, the entity that had a direct role in managing the forest. Forestry Canada was clearly aware of the growing desire for public involvement in environmental management. Each Model Forest was said to "represent input from several organizations and agencies"; government, industry, academia, environmental groups and community organizations are listed, but the intended relationship between these was not discussed explicitly. These various groups were to be represented on a governing Partnership Committee or Board of Directors. This structure was intended to represent a wide range of interests and values.<sup>95</sup> Each Model Forest also formed a non-profit corporation or society to perform daily administrative tasks, and various specialized technical committees that were largely composed of "volunteer experts." These committees developed, reviewed and managed projects that had been approved by the Board of Directors. The various partners or contractors of each forest conducted approved projects.<sup>96</sup> Model Forests were not legal entities that owned land. They had no authority to make land use decisions and policy. If a Model Forest did establish any "good ideas" through research, it was assumed that these would be picked up and used by policy makers. In all, this was a highly bureaucratic structure that necessitated much paperwork at every turn. This seems to suggest that sustainable development, as implemented in the MFP and interpreted in the early 1990s, did provide new forms of participation in resource management, but that participation was enmeshed in and constrained by governmental organization. Governments still were "in charge", broadly speaking, although they had to modify the terms of engagement somewhat.

A Model Forest Secretariat was set up in Ottawa to coordinate the operation of a network between sites and to administer the Model Forest Program. This secretariat managed communications, bringing national directives to various audiences, and purportedly promoted technology transfer among Model Forests and to other forests in Canada and around the world.<sup>97</sup>

---

<sup>95</sup> Forestry Canada, "Background information and guidelines for applicants"; CMFN, "Canada's Model Forest Program: an initiative for sustainable development?" (Canadian Forest Service: Government of Canada, 1994).

<sup>96</sup> These could be scientists, consultant organizations, or forestry companies, for example. CMFN, "Model Forest Program: year in review 1993-1994," (Canadian Forest Service: Government of Canada, 1994).

<sup>97</sup> CMFN, "Model Forest Program: year in review 1994-1995," (Canadian Forest Service: Government of Canada, 1995).

At the national level, there was a Model Forest Network Committee, which the secretariat helped organize. It met twice yearly and sponsored workshops and discussion fora.<sup>98</sup> By 1995, the network had expanded to include three Model Forests in Mexico, three in the US, and one each in Malaysia and Russia, and the Russian and Mexican forests were “twinned” with Canadian forests.<sup>99</sup> This meant a new arm of the Program and the funding of an International Model Forest Program Secretariat. The prime minister originally announced the plans for this at UNCED in 1992, with Canadian financial support for the other nations involved.<sup>100</sup> This gave the Model Forest Program an international dimension, reflected Canada’s capacity to act diplomatically in multilateral forest affairs, continued its history of involvement in UN-related forest initiatives and allowed the country’s politicians to claim credit as founders of the International Model Forest Network. The motivations for participation on behalf of the other nations may have been similar to Canada’s; Mexico, Malaysia and Russia are countries with illegal logging problems and a need for better publicity surrounding their forest practices. The development of a bureaucratic structure around the International Network worried some members of Canadian Model Forests, for plans for the Network focused unduly on the development and sustainability of the Secretariat (of the Network) itself, with little clear strategy as to how the new Model Forests would be integrated and what their vision of sustainability would be.<sup>101</sup> Moreover, it may have seemed to the Canadian forests that the Model Forest budget was being spread ever-thinner; perhaps they feared cuts to their own shares.

### **3.3. Management and Science in the Model Forest Program**

Two concerns shaped the management goals of Model Forests: The first was to demonstrate “best management practices”; the other required more consideration of ecosystems alongside the centrality of wood products. In one sense, Model Forests were expected to be functional operations. By managing for continued output of timber or fibre and processing the forest into discrete products, they would continue to serve and not challenge economic demands for wood. For this to occur, Model Forests required the labour, machinery, and infrastructure of industry to plan and conduct harvesting. These operations needed objectives for integrated resource management as well as resource inventories, environmental assessment, and monitoring; importantly, they were to incorporate approaches in research and design from

---

<sup>98</sup> CMFN, “Model Forest Program: year in review 1993-1994”.

<sup>99</sup> CMFN, “Model Forest Program: year in review 1994-1995”.

<sup>100</sup> CMFN, “Model Forest Program: year in review 1993-1994”.

<sup>101</sup> Beyers, “The Forest Unbundled”.

forestry as well as disciplines such as biology or soil science. In a letter announcing the Model Forest Program in 1992, Federal Minister Oberle stated that “these forests will be living laboratories...the Model Forest will be targeted for the latest in modern management techniques. The knowledge that will be gained from these transfers will be disseminated widely at home and abroad...”<sup>102</sup> The sense that these forests would be showcases was evident in the call for imagination and innovation in all decision-making. This “research and development” aimed to develop best practices, applicable to other landscapes and forest locations. Modelling science and management also was linked to well-advertised use of the most advanced technologies and methods, and to systematized measures of sustainable forest management such as criteria and indicators systems.<sup>103</sup> The expected chain of “demonstrative productivity” was expected to function as follows:

1. Individual Model Forests study their landscapes and produce knowledge about them using geographic information systems, global positioning systems, remote sensing, and more.
2. The output of these studies is encoded in increasingly digital/computerized and easily transferable data sets. Reports are made about the progress made possible after synthesis of this data: executive summaries, segments in newsletters, or glossy leaflets make it accessible and simple.
3. Conditions are in place across the Model Forest Network to ensure the ready exchange of information; there is inter-site coordination due to an efficient communications structure, and clear control and delegation from the center. It is assumed that knowledge produced in and about one place could be used in another.

---

<sup>102</sup> Forestry Canada, “Model Forests: Summary of Proposals,” 3.

<sup>103</sup> E.A. Holmes, “LLI and databases common across the Canadian Model Forest Network: a view to possible information sharing and networking opportunities,” Unpublished report (Canadian Forest Service: Government of Canada, 1998).

4. The exchange of this information strengthens the Program and garners repute for it. If successful at exchanging and using lessons, the Program might receive more funding and attention.<sup>104</sup>

The first step of this chain was the production of knowledge, mainly by scientists. As contracted researchers or on behalf of stakeholders, scientists conducted research projects and published papers and reports. They also served on various committees within individual Model Forests, taking more of a governance and advisory role. A 2001 report by the CFS summarizing scientist involvement in the Model Forest Program found that 35% were from the CFS, 26% from academia, and 13% from the provincial governments. Among the forests, the LBMF had the most scientists, at 73.<sup>105</sup> Their projects were aligned with four of the six major criteria of sustainable forest management. Most projects across the MFP were related to the ecosystem condition and productivity of forests; few pertained to multiple benefits and society's responsibilities. Forest and wildlife ecology were the most frequent areas of primary expertise, but disciplines other than biological sciences were also represented-ranging from economics to atmospheric science. The 2001 report deliberately related the work of scientists to sustainable forest management, particularly by interpreting the title of each project to fit associate areas of expertise with one or more relative criteria from the criteria and indicators framework.<sup>106</sup> This report acknowledged the "fragility" of this method, but justified how easily these associations could be made. The requirements for a particular criterion might be topically similar to some projects, but the manner of considering them did not take into account how the research was used and transmitted. Many projects in Model Forests resulted in a report and a favourable paragraph recounting accomplishments in a glossy newsletter. But advances in sustainable forest management only come about through the efficient sharing and utilization of good research. The rather promotional nature of many CFS reports on scientists' involvement does not address that involvement in its broader context. There was actually a consistent problem with the

---

<sup>104</sup>Forestry Canada, "Background information and guidelines for applicants"; CMFN, "Model Forest Program: year in review 1992-1993."

<sup>105</sup> CMFN, "Science in the Canada's Model Forests: overview of scientist's projects and involvement," (Canadian Forest Service: Government of Canada, 2001).

<sup>106</sup> CMFN, "Science in the Canada's Model Forests: overview of scientist's projects and involvement."

communication and application of research findings, both between Model Forests and to a larger audience.<sup>107</sup>

### **3.4. Communications and Technology Transfer: A True Network?**

Use of technology and advanced tools in forest management was also a large part of the Model Forest mandate. In 1993, a special workshop brought together Model Forest managers and representatives from high-technology companies to discuss the program's needs with regards to GIS, GPS, and remote sensing.<sup>108</sup> All the Model Forests worked with these types of technology in some way, and also made use of sophisticated decision-support systems. The effective transmission of research findings or valuable techniques learned in Model Forests was seen as fundamental to the success of the Program. A national communications committee was formed in 1995 to publicize the MFP's participation in national and international activities for sustainable forest management. According to its promotional material, "through the Model Forest Network, Canada's leading edge forest science is finding applications not only for use domestically but globally as well".<sup>109</sup> But how effectively did this partnership and intercommunications system function? There were marked differences between Model Forests in terms of partnership structures, ecology, size, and funding. National-level committees and working groups brought representatives from all sites together, but this was a heavily bureaucratic structure that did not actually let the Model Forests have much say.

A 1996 evaluation by independent consultants Gardner-Pinfold also found that Model Forests tended to remain isolated from the larger forestry community in Canada, and that there was little collaboration between MF and the industry on sustainable forestry activities. The types of research projects that did occur were often "unsolicited submissions by research agencies, stimulated by the availability of a fresh pool of research funds".<sup>110</sup> This changed slightly as the Program as a whole moved from research and groundwork to more applied work and technology transfer. This was partially due to the variable level of commitment on the part of the provinces; it was also a function of the long years needed for Model Forests to build partnerships and prepare research agendas among themselves. One also wonders if the envisioned community of

---

<sup>107</sup> The Gardner-Pinfold evaluation points out that while Model Forests were unfocussed at first, their research objectives became more clear over time, and they succeeded in many cases in working effectively with universities in their region.

<sup>108</sup> CMFN, "Model Forest Program: year in review 1992-1993."

<sup>109</sup> CMFN, "Model Forest Network: building partnerships for sustainable forest management," Information leaflet (Canadian Forest Service: Government of Canada, n.d.).

<sup>110</sup> Gardner-Pinfold, "Evaluation of the Canadian Model Forest Program", 60.

people interested in sustainable forest management in Canada was really cohesive and accessible enough for the MFP to interact with. In the 1990s, organizations for sustainable forest management did not exist to the extent that they do today, and thus it may have been harder to get a sense of “who was out there” when it was a largely scattered collection of individuals. Moreover, links to the other programs of the Green Plan (Enhanced Science and Technology, Information and Bio-Monitoring) had been envisioned at the Model Forest Program’s inception. These never materialized; so technological developments in the other programs were not tested or used in Model Forests. In fact, most Model Forest stakeholders interviewed in conjunction with the Gardner-Pinfold Evaluation were unaware of the existence of these programs.

A third area of communication was publicity—the evaluation asked, “has the international acceptance of Canada’s forest products improved such that we are less subject to protests stemming from environmental concerns? How much of this can be attributed to the Model Forest Program?”<sup>111</sup> It is hard to tell how much Model Forests might have defused the negative press provided by environmental movements; forestry trade experts in the government insisted that since the Program was well known to foresters and scientists in other countries, it would enhance Canada’s credibility as a progressive manager of forests.<sup>112</sup> Diplomacy in the context of the “environmental agenda” may be regarded as a manifestation of state power; the MFP may be seen as “unofficial diplomacy” for its publicity in other countries and for Canada’s role in sponsoring the international model forest network.<sup>113</sup> This tied into the strategies of multilateral forest diplomacy discussed in Chapter 1 with the Montreal Process, IPF, and IFF. Ultimately, however, these effects are unmeasurable and subjective. Model Forests simply could not play any real role in process reform. The very structure of the Model Forest Program as dictated by CFS and the restrictions placed on it by the provinces (see Chapter 4) limited this policy influence from its inception. The communications committee suggested that the Model Forest Program seek more general publicity.<sup>114</sup> The program was promoted in a number of international

---

<sup>111</sup> These queries had been prepared for Gardner-Pinfold by the CFS. CMFN, “Background document: evaluation study report No. PE 218/95,” (Canadian Forest Service: Government of Canada, 1995).

<sup>112</sup> W.T. Stanbury, Ilan Vertinsky, and Bill Wilson, *The Challenge to Canadian Forest Products in Europe: Managing a Complex Environmental Issue* (Vancouver: Forest Economics and Policy Research Unit, University of British Columbia, 1994).

<sup>113</sup> Hocking, “The Woods and the Trees.”

<sup>114</sup> In the Clayoquot Sound region, the MFP had garnered some negative press, with minute details of its struggles constantly noted in the local newspapers. A survey of newspaper clippings from the LBMF’s press coverage shows the personal dimension of conflict there; the same reporters produced consistently negative and even biased opinion pieces about the Model Forest.

and national fora, such as newspapers, and as Figure 3.2 shows, the classroom. Here, the idea of Canada's leadership in forestry was promoted through a secondary-school activity that required students to look at a map of Model Forests and encouraged them to think about Canada's role in sustainable forestry. Another activity is a crossword with clues about individual Model Forests. The Model Forest Network helped sponsor these materials as part of National Forest Week 2000, a program designed to inform the public about the past, present, and future of Canada's forest industries. This sponsorship may signify, to the cynic, a blatantly promotional attempt to insinuate the Model Forest Program into pedagogy, for the Canadian Forest Service did want to publicize the Model Forest Program extensively. But these materials also symbolize the importance of forestry as well as sustainable development to Canada. Word of the transition to more sustainable forest management had reached past the realms of the expert, the forester and the bureaucrat. Thanks to the Model Forest Program, the processes and policies behind use of forests could be presented in a dynamic and accessible fashion for younger audiences.

### **3.5. Partnership and Community Relationships in Model Forests**

Each Model Forest was expected to set objectives according to the environmental as well as socio-economic and cultural contexts of its setting/ location. Model Forests were described as places where people could be become as actively involved in sustainable forest management as possible. But was this genuinely significant to Forestry Canada? Were they merely giving a requisite acknowledgement to the "human" dimensions of forest management? Were the Boards of Directors in each model forest truly balanced among stakeholders? Notions of community and the social dimensions of forestry are complex (this will be discussed in Chapter 4), and there was no clear policy indicating how much Model Forests were to allocate for "community development" objectives.

Perhaps this explains why no one associated with Model Forests made an explicit statement on the role of communities in Model Forests until a report in 1998. There, an academic working with the Manitoba Model Forest explained that an appreciation of community values

---

There was more diversity in authorship in the more ambivalent or positive pieces. Despite the strong role that the LBMF played in garnering funding for the Nuu-chah-nulth, there were few articles about the LBMF in their newspaper, *Ha-shilth-sa*. This may be due to the nature of the collection of clippings; the person collecting them may not have thought to check *Ha-shilth-sa* as commonly as the other papers. Press coverage of the LBMF will be discussed more extensively in Chapter 5.

was essential to effective sustainable forest management.<sup>115</sup> At the time, only three of the ten Canadian MFs had initiated any research on these values. However, their findings were already telling. Workshop participants and survey respondents indicated that that community-based research could stimulate more creative decision-making processes, and questioned whether Model Forests were really capable of challenging and changing policies, even locally.<sup>116</sup> Particularly in their earlier years, Model Forests were not well known or at least well understood by communities. Brochures that explained what a model forest was (and what it was not) were necessary. Actual visitor centres like the Rainforest Interpretative Centre in Tofino, B.C. also gave Model Forests a face and a way for visitors to interact with and sense the tangibility of the Model Forest-in this case, the LBMF. But the Canadian Forest Service seems to have assumed that stakeholders represented the larger public; this is not necessarily true.

According to both Program documentation and some scholars “a model forest may be considered a social experiment in innovative learning. It is a consensus-driven partnership, working with shared decision making...”<sup>117</sup> In an edited volume on communities and forests worldwide, Canadian forestry academics Gary Bull and Olaf Schwab have also compared model forests to community forests, and suggested that both have great potential to manage for community values. But the two types of forest use different definitions of the term “community”, thus selecting different segments of society as relevant to their mandate. According to Bull and Schwab, Model Forests use a holistic vision, which allows the incorporation of a broad range of interests into the decision-making process. This creates significant opportunities for links outside the community. Community forests imply a geographically specific definition of community. That more focused definition of community allows for rapid implementation of change, whereas the Model Forest Program allows the development of possible new management techniques that might be then applied in a community forest setting.<sup>118</sup> This perspective may reflect more of ideal forms than practical realities. There are examples of research done in Model Forests

---

<sup>115</sup> John Sinclair, “Model forests: towards more sustainable forest management?” Report to the Manitoba Model Forest, CMFN, 1998.

<sup>116</sup> Ron Ayling, “Model Forests: a partnership-based approach to landscape management” in *Social Learning in Community Forests*, ed. Eva Wollenberg *et al.* (Jakarta: The Center for International Forestry Research and the East-West Center, 2001), 151-171.

<sup>117</sup> Ayling, “Model Forests”, 155.

<sup>118</sup> Gary Bull and Olaf Schawb, “Communities and forestry in Canada: A review and analysis of Model Forest and Community Forest programs in Canada” in *Community and Forestry: Where People Meet the Land*, ed. R. Lee. and D. Field (Corvallis: Oregon State University Press, 2005), 176-193.

diffusing to other user groups<sup>119</sup>, but the social “leg” of the sustainability stool did not garner as much attention as the ecological and economic legs, particularly in a forest nation such as Canada. There were few systematic assessments of public values in Canada at this time, and those that were performed were concerned with the reputation of forestry in the face of environmental criticism. In the Model Forest Program literature, social concerns are implicitly rather than explicitly invoked.

Although the Program provides a theoretical framework for collective learning and decision-making, it fails to analyze or understand what “social” is in sustainable forest management. While the possibilities and effects of technology transfer are elucidated, predicted and debated, little is said about how the people involved in the Model Forest Program will function together. The program was evaluated in 1996<sup>120</sup> by independently contracted economic consultants Gardner-Pinfold Limited, who stated that partnership building was a longer and more difficult process than expected. From 1991-1996, the Model Forest Program went through a “difficult initiation”.<sup>121</sup> Despite the industry dominance in many Model Forests, there was a genuine effort to set up numerous partnerships, and previously polarized groups found themselves meeting face to face in Model Forest offices. This arrangement was largely unprecedented. It would take years to agree on what was important and what should be done to ensure the sustainability of each forest. The first phase was thus characterized by a focus on localized building, the development of effective working relationships, and the enhancement of knowledge about each site. Model forests should be considered as sets of relationships rather than just places. Their boundaries were not legal land-use zones, and their authority was merely consultative. Forging new relationships around new notions of what the forest is, why it is valuable, and how to live with it was an important and widely acknowledged purpose of the MFP. But there has been little critical discussion of how this should take place or what it might mean for sustainable development. Documents establishing and guiding Model Forests rarely

---

<sup>119</sup>CMFN, “Innovations: the Canadian Model Forest Network Bulletin, September 2000,” (Canadian Forest Service: Government of Canada, 2000).

Examples include a New Brunswick fishing group; after suffering dissent over its goals, it tried a new structure imitating the Fundy Model Forest’s organization. In the LBMF, protocol for interacting with the Nuu-chah-nulth were used by other researchers in the region.

<sup>120</sup> This evaluation took place at the end of Phase I of the Model Forest Program (1992-1996). Phase II was from 1997-2002; the Program is currently funded for a Phase III (2003-2008).

<sup>121</sup>Future Directions Committee, “Beacons of Sustainability: Canada’s Model Forests,” (Canadian Model Forest Network, Canadian Forest Service: Government of Canada, 2000).

warned of or made room for disagreement, or suggested that facilitators might be of use. Perhaps the CFS did not see a need for this, given the sites that they had chosen.

Although Model Forests brought together formerly disparate parties, they were often located in “safer spots”, in regions where there was clear industry dominance and the stable presence of a single timber company, or where there was not much history of conflict and/or organized environmental movements. Much time was spent in Model Forest governance discussing issues that were not contentious, rather than actually delving into forestry practices and policies. The Gardner-Pinfold evaluation noted that in most Model Forests, many conflicts were resolved through informal discussion and never reached the floor of a Board meeting; that most did not have a specific conflict resolution mechanism; and that rather than tackling substantive issues, many spent time instead on ground rules such as project criteria and selection.<sup>122</sup> It was also noted that “each Model Forest had surprisingly developed its own approach to conflict resolution, and there was no evidence of transfer from one Model Forest to another. We wonder whether the Model Forest Network could have played a stronger role in this regard.”<sup>123</sup> The LBMF was an exception, with controversial issues dominating its proceedings, and Chapter 5 shows just how partnership building played out “behind the scenes” there, socially and interpersonally as well as across cultures.

### **3.5.1. The Original Custodians of “the Forest Resource”**

The Brundtland Report emphasized the importance of indigenous involvement in sustainable development initiatives, and the Model Forest Program followed suit. The LBMF and the Prince Albert Model Forest gave central roles to the Nuu-chah-nulth and Montreal Lake Cree First Nations respectively. But the MFP as a whole began with minimal inclusion of aboriginal groups. Although they were listed as important stakeholders, there was only a vague sense of what their involvement could entail. Notions such as “cultural values of the forest” were mentioned, but not defined or exemplified. What “cultural” meant to the Model Forests seems even less clear than what “social” or “community” meant. Still, material produced by the MFP Secretariat and other model forests often proclaims successes in partnerships with First Nations,

---

<sup>122</sup> Gardner-Pinfold Consulting Economists, Ltd., “Evaluation of the Canadian Model Forest Program: Prepared for the National Advisory Committee for the Model Forest Program Evaluation” Canadian Model Forest Network, 1996.

<sup>123</sup> Gardner-Pinfold, “Evaluation of the Canadian Model Forest Program”, 46.

or at least good intent. As a consultant hired to assess the First Nations role in the MFP observed<sup>124</sup>,

“The concept of sustainable development is all inclusive in its implementation. Hence, as integral parts of the broader forest landscape, First Nation communities, including recognition of their rights and land titles, identity, culture, perspectives, traditional ecological knowledge, values, benefits, uses and aspirations, should be acknowledged and integrated into the forest management decision-making processes. On conceptual grounds, therefore, it is desirable that First Nations participate meaningfully in [CMFN]. On practical grounds, there are reasons for ensuring First Nations participation in the Program. First Nations are not simply another stakeholder in the forest resource. They were the original custodians of the forest resource.”

Yet ongoing negotiation and tension marked the relationship of aboriginal and non-aboriginal stakeholders in Model Forests, and that same consultant, as well as native interviewees, had candid observations on that topic:

“In fact, at model forest sites where some First Nations hold perceptions of inequities, paternalism, insensitivities, disrespect for differing values, traditions and cultures, as well as inequitable representation in the decision-making process, their willingness or zeal to participate actively in the Program has grown ‘stone cold’.”<sup>125</sup>

And, as remarked one elder remarked at a national Model Forest meeting, “People asking to share our knowledge are mostly doing it for themselves, not because they care for First Nations people.”<sup>126</sup>

During Phase I, First Nations participation ranged from total (LBMF, Prince Albert, and Eastern Ontario<sup>127</sup>) to none (Bas-Saint-Laurent, Fundy and Western Newfoundland, with

---

<sup>124</sup> Walker, “First Nations Participation”, 30. Hugh Walker Consulting Enterprises was contracted in 1997-1998 to assess First Nations’ participation in the MFP and to make recommendations. Walker assessed participation from the following facets of each Model Forest: decision-making processes; Advisory Committees; grassroots/community role; and the level of funding or support of First Nations projects/initiatives. This report was a first step; collating experiences from across the Program did engender a more cohesive and attentive policy towards First Nations’ participation.

<sup>125</sup> Ibid., iv.

<sup>126</sup> Elder Burnstick in CMFN, “Minutes of the CMFN Enhanced Aboriginal Working Group Meeting, Edmonton, AB, January 25<sup>th</sup>, 1998,” (Canadian Forest Service: Government of Canada, 1998), 55.

<sup>127</sup> Margaret George and George Haas, “Trees of Akwesasne”, (Eastern Ontario Model Forest: Canadian Forest Service, 1996); S.N. Kulshreshtha and K. Agyirey-Kwakye, “Selected Socio-Economic Characteristics of Aboriginal Families Living Off-Reserve: A Case Study of Prince Albert.” A report submitted to the Prince Albert Model Forest Association, March 1995.

involvement in six of the Model Forests.<sup>128</sup> An Enhanced Aboriginal Involvement Working Group was created at the federal level to produce a standard position on First Nations in Model Forests. During Phase II, First Nations' participation was planned and eventually integrated for the Manitoba, Lake Abitibi, and Foothills forests, and a new First Nation-controlled forest, the Waswanipi Cree Model Forest, was established in northern Quebec.<sup>129</sup> Plans for a promotional brochure in 1999 listed "considerable advancements in Aboriginal involvement" as a key message.<sup>130</sup> However, the minutes from an NSOC meeting in 2000 are telling; most accounts of the Enhanced Aboriginal Involvement Initiative were vague and did not seem to indicate progress on any projects.<sup>131</sup> This pattern was repeated the following year, although involvement of the new Waswanipi Cree Model Forest was suggested. The Cree Model Forest held a "reverse day", in which proceedings were held in Cree and other partners were able to experience what it is like to be a First Nation in collaboration with other stakeholders.<sup>132</sup>

There was also an attempt to clarify the capacity of a Model Forest with regards to First Nations politics. Some First Nations had believed in Phase I that a model forest could be an advocate for political change or contribute to bettering their socioeconomic conditions. While they appreciated the benefits that federal money would bring, such as new computers and GIS training, they also saw how there was little effort in Phase I to critically address the power dynamics underlying co-management and non-aboriginal use of traditional ecological knowledge. The ongoing land claims processes across Canada were so important to First Nations that they may also have rejected organizations that did not seem instrumental with regards to political objectives. In order for this to change, Walker recommended that "First Nations, then, need to reconcile their views and expectations to the specific purpose, mandate, goals and objectives of Canada's Model Forest Program, which ought not to be held hostage to the pursuit of outstanding land claims or other political objectives."<sup>133</sup>

---

<sup>128</sup> Gardner-Pinfold, "Evaluation of the Canadian Model Forest Program."

<sup>129</sup> Walker, "First Nations' Participation", v.

<sup>130</sup> NSOC, "Canada's Model Forest Program".

<sup>131</sup> NSOC, "National Strategic and Operations Committee Meeting Minutes, Quebec, 2000," (Canadian Model Forest Network: Government of Canada, 2000).

<sup>132</sup> NSOC, "Network Strategic and Operations Committee Meeting Record, Toronto, O.N., 2001," (Canadian Model Forest Network: Government of Canada, 2001).

<sup>133</sup> Walker, "First Nations' Participation", iv.

### 3.6. The Model Forest Program: From Sustained Yield to Sustainable Development?

The Model Forest Program was intended to help shift forest practices from sustained yield to sustainable development. By 1996, all MFs had articulated understanding of sustainable development in vision statements or broad objectives. All of them recognized multiple values, but Gardner-Pinfold concluded that there was “no evidence that the Model Forests have reached general agreement on what constitutes sustainable development”.<sup>134</sup> Just before the evaluation, the CFS had remarked that “all model forest sites would probably have the same interpretation of the term and their actions would be consistent with the objectives of the national Model Forest Program”.<sup>135</sup> The shifting definitions and degrees of clarity expressed in the Model Forest Program’s use of “sustainable development” might serve as a mirror, of how the concept changed. But it is a necessarily warped mirror, one that illuminates not only how accurately the MFP may have followed changes in perception, but also how it may have downplayed, obscured, fragmented, or even obscured them through a focus on some aspects (research and development) more than others (sociocultural facets of forest management). It is evident from the experience of the MFP that new ideas about the environment can be adopted in piecemeal ways that are highly contingent on intergovernmental relationships and local contexts. If Model Forests were to be “beacons of sustainability”, it is legitimate to ask: what torch were they bearing? Model Forests were intended to demonstrate that Canadian forest practices were moving away from sustained yield. Moreover, the partnerships that made up each Model Forest signified that these new management strategies were not established merely through technical decisions in closed groups of experts, but with the input of different stakeholders. Thus, while they were constrained from taking certain types of action by their status as federal program, they were equally shaped by a climate of international concern and pressure around sustainable development, and the sense that serious refashioning of resource extraction was necessary. It is true that the Model Forest Program embodies some of the typical characteristics of sustainable development as deployed by governmental actors: an emphasis on expert knowledge and technological fixes; an assumption rather than explicit elucidation of society’s role in change; and an incremental agenda that discusses much but executes little.<sup>136</sup> Model forests were necessarily constrained by a lack of jurisdictional authority. Their workplans held some aspects of a new “environmental” mandate, but still operated in a traditional tenure system of industrial logging. Yet the Program should also

---

<sup>134</sup>Gardner-Pinfold, “Evaluation of the Canadian Model Forest Program”, vi.

<sup>135</sup>CMFN, “Background document: evaluation study report No. PE 218/95”, 10.

<sup>136</sup>Robinson, “Squaring the Circle?”

be situated in a broader historical context. Sustainability in the forests of Canada has slowly shifted from in meaning from sustaining an industry to sustaining yield and employment, to sustaining forests as ecosystems and the complex social and cultural implications of work and play in the trees. The Model Forest Program represents a point in that shift. Like the 1992 National Forest Sector Strategy, it is an acknowledgement of forests as ecologically important places and sets of relationships. However, how well the Canadian Forest Service actualized this acknowledgment in their operation of the Program is debatable.

### **3.7. Conclusion: Meanings of the Model Forest Program**

By describing the major characteristics of the Model Forest Program, this chapter argues that the MFP represents a particular engagement with the concept of sustainable development predicated on its position as a federally funded program. Forestry Canada made its vision of Model Forests clear and positive in numerous press releases and promotional documents. First of note is use of the word “model” to invoke a neatly bounded space of experimentation where results were offered to the world with a high degree of confidence. This confidence stems from the cognitive authority ascribed to not only forestry experts and other scientists, but to the discipline or knowledge-production system of science as a whole. Much work has been done to dis-assemble the assumptions and structures of power that support this cognitive authority, and it is of use when considering the role of any science-based model program.

Generally speaking, the sociology of science has served to investigate the social effects and conditions of science, as well as the structures and processes that constitute scientific activity, in order to identify it as a cultural system rather than an objective source of truths. It has been argued that “scientific’ activity is not ‘about nature’, it is a fierce fight to construct reality. The laboratory is the workplace and the set of productive forces, which makes construction possible”.<sup>137</sup> The laboratory is not only a workplace, but an enclosure drawn so that “scientific reality” can exist as a pocket of order. These boundaries are intended to keep out disorder as well as any “signals” that do not fit with what lies within the enclosure, which appears to be organized, logical, and coherent to those who witness it; thus it garners the cognitive authority to provide universal knowledge. These contentions may be useful in observing how the federal government sought within its limited mandate to place sites of order (Model Forests) onto the increasingly conflicted landscape of forest management. The designated enclosure of a Model

---

<sup>137</sup> Bruno Latour and Steve Woolgar, *Laboratory Life: the Construction of Scientific Facts* (Princeton, N.J: Princeton University Press, 1986), 243.

Forest, a place/entity intended to be neutral and integrative, is suggestive of how Canadian bureaucracy views knowledge in relation to sustainability discourse. The production of new and improved forms of knowledge in sustainable forest management is seen as possible through two means: scientific methods (calculable rules, research and development and increased reliance on technology) and integration of stakeholders (new partnerships, compromises and consensuses and increased input from traditionally marginalized voices). Packages of assumptions come with reliance on each of these means. For example, expert communities, such as forestry scientists and bureaucrats, may treat information about forests that arises from calculable rules as both apolitical and able to further the sophistication of management techniques, and ignore the range of personalities and agendas that they as individuals and representatives of the provincial forest service or academic institutions or forest companies would bring to their research. The Model Forest Program actually exposed much of this "politics behind science" when it dictated what were and were not acceptable types of research. The scientific research agenda of the LBMF, for example, was criticized by the CFS for being too focused on general forest ecology and not enough on the testing of new forest practices. The CFS wanted the LBMF to have the support of industry partners, who would not be inclined to fund projects about, say, the biodiversity of amphibians in an area slated for logging.

The federal forest service, through the Model Forest Program, did more than assume that its experimental spaces produced expert knowledge about trees. It also applied the same logic and language of neutrality to socio-cultural dimensions within its enclosure. For all the directives and specifications given to Model Forests about science, little guidance was provided about conflict resolution or how to function as part of established communities. The only mentions of this were vague. Model Forests were made to appear as entities that would act fairly and consistently. The Model Forest Program succeeded in bringing a range of stakeholders together, and its very presence suggests a genuine effort to recognize the shifting terrain of forest management. Affected as it was by the discourse around sustainable development and by an increasingly aware public, the Canadian forest was also transformed in composition and productivity due to centuries of harvesting. Facing these tremendous changes would require both immense technological and human capacity. Seeing the landscape in a new light means innovation not only in how we know and manage the forests, but also how we know ourselves in relation to our natural world. Sustainable development focused largely on technical and management issues through the 1990s, but a slow movement towards greater acknowledgement of this as a fundamentally social process is evident. In the case of the Model Forest Program, movement was

especially slow because it was a federal program; it could not help but be shackled with the same sorts of limitations that affected the federal role in general. Like the CFS, the Model Forest Program was pushed by other sources of power (industrial forestry companies and provincial governments) into a small mandate. Its experience begs the question: could there even be such a thing as a neutral consultative entity in forest management, fraught as it was with uncertainty and transition? And could the federal government really be expected to play this role? The tensions and contradictions of sustainable development can still be seen in the trials and tribulations of Model Forests. One place where this held especially true was Clayoquot Sound, caught as it were in the complicated "forest geographies" of British Columbia.

## Chapter 4

# The “Uneven” Geographies of Places: Forest Politics in British Columbia

### 4.1. A Shifting Scene: Forest Practices From Liquidation to Falldown

The forest politics of British Columbia are intimidating both in scope and complexity, and they have been treated thoroughly elsewhere. Book-length work includes Bruce Braun's *The Intemperate Rainforest*; Benajmin Cashore *et al.*'s *In Search of Sustainability*; Ken Drushka *et al.*'s *Touch Wood*; Patricia Marchak's *Green Gold*; Debra Salazar and Donald Alper's *Sustaining the Forests of the Pacific Coast*, and Jeremy Wilson's *Talk and Log*, to name a few.<sup>138</sup> This chapter owes much to the labour of those in forestry, political science, geography, economics, and natural resource management studies. It describes the recent history of forest sustainability politics in British Columbia, using the analytical frame provided by the notion of “sustained yield-sustainable development-sustainability.” These three catchphrases have been deployed to indicate watersheds in forest policy and public concern.

Forest practices of the 20<sup>th</sup> century, particularly the “liquidation regime” described by Richard Rajala in his work on Vancouver Island, produced changes in the forest evident by the 1980s. These included the “falldown” effect, the rise of environmental concerns and the emergence of strong voices for recognition of First nations rights and claims. “Falldown” is the term used to describe the reduction in productivity (volume of wood per area) that resulted from the re-centering of harvesting on lower-volume second growth as so-called old-growth stands were depleted. Associated with and stemming from this, government and industry began to scramble to deal with the economic fallout of mill closures and decaying community life. At the

---

<sup>138</sup> Bruce Braun, *The Intemperate Rainforest: Nature, Culture, and Power on Canada's West Coast* (Minneapolis, MN: University of Minnesota Press, 2002); Benajmin Cashore *et al.*, *In Search of Sustainability: British Columbia Forest Policy in the 1990s* (Vancouver: UBC Press, 2001); Ken Drushka, Bob Nixon, and Ray Travers, eds., *Touch Wood: B.C. Forests at the Crossroads* (Madeira Park, B.C.: Harbour Publishing, 1993); Patricia Marchak, *Green Gold: the Forest Industry in British Columbia* (Vancouver: UBC Press, 1983); Debra Salazar and Donald Alper, eds., *Sustaining the Forests of the Pacific Coast: Forging Truces in the War in the Woods* (Vancouver: UBC Press, 2000); and Jeremy Wilson, *Talk and Log: Wilderness Politics in British Columbia* (Vancouver: UBC Press, 1998).

same time, various environmental movements expressed increasingly insistent concerns about the loss of wilderness and old-growth forest, especially on the coast; their efforts produced a particular uneven geography of attention to forestry issues across the province. The coalescence of different, often polarized stakeholders in certain locations brought international attention to B.C.'s forests, and resulted in innovative policies that placed cultural and social dynamics alongside more technical and scientific concerns in importance. The work of the Scientific Panel for Sustainable Forest Practices in Clayoquot Sound offers a leading example of this. While the panel's recommendations affected a relatively small area, they deserve attention (alongside alternative tenures and land-use planning mechanisms such as community forests and roundtables) as harbingers of change in B.C. The SPSFCS was also central to the LBMF, giving it not only authority and some clear directives for research, but also an example of how to respect both aboriginal and non-aboriginal values in practice and theory. Finally, the role of B.C.'s First Nations, in pursuit of land claims, rights and recognition had numerous implications for land use plans and the future of forestry. By scaling down to focus upon what sustainable development meant in the Clayoquot Sound area and to SPSFCS, the final section of this chapter sets the scene for a discussion of the LBMF in Chapter 5.

#### **4.1.1. A "Liquidation Regime"**

B.C.'s forest industry began in earnest in the 1860s, with cargo mills on Alberni and Burrard inlets supplying lumber across the Pacific. In the decades thereafter, the establishment of sawmills and logging infrastructure "made" many communities across B.C. and sustained them through employment. Some of these communities (such as Port Alberni on Vancouver Island) would eventually be among the wealthiest in Canada. Railway developments expanded access and investment, and in 1905, the premier extended the length of licences and also made them transferable. This made it easier to obtain cutting rights and opened B.C. to a flood of American capital. The early twentieth century was characterized by unregulated harvesting and a "competitive capitalism" that had stripped some coastal areas by the 1930s. Then the Depression slowed the harvest rate, albeit only briefly.<sup>139</sup> Advancing depletion of the resource increased the rush, particularly by pulp and paper companies, to claim remaining timberland. A surge of financial consolidations and the development of integrated corporate forestry increasingly structured and standardized all aspects of production. Mature forests were culled through an

---

<sup>139</sup> Richard Rajala, *Clearcutting the Pacific Rain Forest: Production, Science, and Regulation* (Vancouver: UBC Press, 1998).

increasingly mechanized and efficient “factory regime”, made possible through the use of steam machines and organized labour, that imposed, in Rajala’s words, a “structure of technological control” over both loggers and nature. Enabled by the provincial tenure system, the corporate and technological onslaught on the mature forests of the BC coast substantially depleted readily accessible reserves of mature timber. This concerned the B.C. government as its economic and social ramifications became apparent. Changes in the forest industry could cause fortunes to soar one year and plummet the next. It was difficult for many communities to remain vital places with sufficient employment when they were subjected to such boom-bust cycles. As economic geographers Roger Hayter and Trevor Barnes remark, “because of the vicissitudes of international commodity prices, international corporate-decision making, technological change, and the supply and quality of the natural resource stocks themselves, thriving single industry towns can quickly become ghost towns”.<sup>140</sup>

#### **4.1.2. A Supply in Perpetuity: Sustained Yield**

To address these concerns, B.C. established two Royal Commissions on Forest Resources (in 1945 and 1956) under Chief Justice Gordon Sloan. The outcome of these commissions was a systematic sustained yield policy for forest management. Sustained yield harvesting was intended to address the social and economic challenges of the boom and bust exploitation cycle by ensuring a continuing supply of timber that would sustain industrial exploitation (and people and communities) over the long term.<sup>141</sup> The first Sloan Commission outlined the basis for a sustained yield policy. Sloan examined the lack of regulation on harvesting, especially on the coast, and concluded that B.C. needed a policy that ensured “a perpetual yield of wood of commercially usable quality from regional areas in yearly or periodic quantities of equal or increasing volume.”<sup>142</sup> This would entail an increase of the annual allowable cut (AAC)<sup>143</sup> to 16.5 million cubic meters across B.C.; so foresters were given permission to cut at an increased

---

<sup>140</sup> Trevor Barnes and Roger Hayter, eds., *Troubles in the Rainforest: British Columbia's Forest Economy in Transition* (Victoria, B.C.: Western Geographical Press, 1997), 8.

<sup>141</sup> Dellert, “Sustained Yield.”

<sup>142</sup> Gordon Sloan, *Report of the Honourable Gordon McG. Sloan, Chief Justice of British Columbia, Relating to the Forest Resources of British Columbia* (Victoria: Queen's Printer, 1945), 127.

<sup>143</sup> Annual allowable cut is currently measured within each licence in hectares, or land area; when discussing the cut in the entire province, the quantity is expressed in either board feet or cubic meters—a volume of wood.

rate. American foresters Alaric Sample and Roger Sedjo describe this cutting policy as an approach that:

“recognizes that trees begin their growth slowly, with only modest increases in annual volume, then increase their growth at an increasing rate, and finally, beyond some age, begin to experience a decline in annual additions to tree volume. The culmination of mean annual increment rule gives the rotation age at which the sustainable harvest volume will be maximized. The harvest level is determined using Hanzlik’s Formula, which divides the net growth over the entire area of the economic enterprise by the rotation length and indicates the average annual volume of timber that can be removed on a sustainable basis.”<sup>144</sup>

As the old-growth forest was cut, it was to be replaced by a fast-growing “crop” of even-aged stands of second growth. It was anticipated that the AAC could level off briefly as the second growth developed, but then would rise again with the harvesting of this efficiently-grown forest structure.<sup>145</sup>

The other aspect of this “fix” was the refashioning of licences in the tenure system to permit more stability and governmental control over industry. Sloan recognized that the holders of licences were “likely to resent any interference in what they consider to be their property rights” but that “public welfare must take precedence.”<sup>146</sup> The outcome was a proposal that switched temporary tenures to permanent status, provided that their holders regulated their cut on a sustained-yield basis. To this end, two new types of tenure were established in 1945—the Tree Farm Licence (TFL) and the Public Sustained Yield Unit (PSYU). TFLs are individual working circles formed from former private land and temporary licences, to be operated by companies with management plans approved by the Ministry of Forests. The goal of the TFL system was long-term tenure within governmental control of forestry. It was thought that this would provide relief from uncertainty as well as incentives for increased investment in the health of forests within the operating licence. However, it ultimately allowed larger companies to claim choice land.<sup>147</sup> The TFL was originally intended to attract investment capital and help sustain forestry communities, yet by the 1980s, many of these communities were still suffering from reduced employment. PSYUs were created to help retain access to the forest for smaller operators in the face of the vertical integration that marked the industry by the 1940s by organizing logging by local companies. Yet stability, employment, increased efficiency, and improved forest management were seen as advantages of corporate concentration. This would, however,

---

<sup>144</sup> Alaric Sample and Roger Sedjo, “Sustainability in Forest Management: An Evolving Concept,” *International Advances in Economic Research* 2, no. 2(May 1996): 170.

<sup>145</sup> Dellert, “Sustained Yield”, 265.

<sup>146</sup> Sloan, *Relating to the Forest Resources of British Columbia (1945)*, 141

<sup>147</sup> Rajala, *Clearcutting the Pacific Rainforest*.

eliminate many small operators.<sup>148</sup> Many licensees today are such integrated wood products companies such as Weyerhaeuser.

Following the first Sloan Commission was a marked increase in harvest across B.C., which prompted a second Commission in 1956 to assess the decade of changes. Whereas the first Commission was intended to sustain the economy and communities through an increased yield of timber, the second brought up concerns of depletion as a result of increased cuts. Sloan had become concerned about the sustainability of a future supply of timber, writing that “there is a moral obligation on this generation to leave the forests in a productive state...not merely that they have been reforested after logging, but that the growing stock is capable of sustaining an annual yield of commercial quality.”<sup>149</sup> Yet the second Commission did not offer any technical solutions; Hanzlik’s formula remained the basis of a sustained yield policy. Industry testimony to the Commission made much of the benefits of its patch logging techniques and of their plans for seed blocks and reforestation, and reassured Sloan that timber supply would be perpetual.

Over the next two decades, the AAC doubled to nearly 60 million cubic meters. The industry also shifted in focus from large, old growth trees to smaller species such as lodgepole pine, which had become more economical to process thanks to more sophisticated technology in sawmilling. In the 1960s, many mills were built, and the increased harvest afforded prosperity to B.C.’s communities. The higher AAC was not questioned; confidence in the science behind sustained yield was such that increased harvests were expected for the future. Given all the changes in the size and structure of the forest industry, another Royal Commission was organized in 1976 to “take stock.” The Pearse Commission examined the sustained yield policies of the past thirty years, and was the first official report to discuss the possibility that the transition to second-growth forests would not occur as quickly as planned. Pearse commented that this was “because of the present preponderance of high-volume old-growth stands that have grown much longer than the rotation periods planned for subsequent crops. Once these are depleted and replaced by new crops, the calculated allowable cut must fall to be consistent with growth.”<sup>150</sup> However, he noted that a falldown was not necessarily imminent because the new logging and sawmilling technology could increase volume, and the new forest itself could be

---

<sup>148</sup> Dellert, “Sustained Yield.”

<sup>149</sup> Gordon Sloan, *Report of the Honourable Gordon McG. Sloan, Chief Justice of British Columbia, Relating to the Forest Resources of British Columbia* (Victoria: Queen's Printer, 1956), 236-237.

<sup>150</sup> Peter Pearse, Commissioner, *Timber Rights and Forest Policy in British Columbia: Report of the Royal Commission on Forest Resources* (Victoria: Queen's Printer, 1976), 227.

more productive than the old, leading to shorter rotation ages. The Pearse Commission did recognize limits to growth. But it remained optimistic enough about the ability of forest science to make a sufficiently productive forest, and confident enough about the technology of logging to refrain from making a major reduction to the AAC. The Commission's recommendations did, however, lead to more changes in the forest industry. Pearse recommended an even higher AAC to take advantage of the high-volume old-growth that still existed. B.C. passed two acts in response in 1979. One created the Ministry of Forests from the existing B.C. Forest Service, in place since 1912. The other, the *Forest Act*, changed the way that the AAC was calculated; instead of using Hanzlik's formula, the chief forester would have to consider a range of other information from inventories before making a decision, and to review the AAC every five years instead of every ten years as before. The Pearse Commission, despite its support for continuing sustained yield policies, had sown the seeds of sustained yield's undoing with these changes. By 1984, the use of more advanced timber supply inventories and modeling techniques allowed the discovery that falldown was in fact occurring, and that timber supply would level off.

Falldown had ramifications beyond decreased timber supply. Attempts to create the "normal forest" from 1945-1984 had necessarily required a good deal of managerial control, resulting in (temporarily) stable yet inflexible political, economic and ecological systems.<sup>151</sup> Ecologists now recognize that ecosystems grow resilient through disturbance, and that suppressing change and managing for stability can decrease that resiliency. The traditional notion of balance and equilibrium in nature has been refashioned with understanding of chaos and complexity.<sup>152</sup> Ecologist C.S. Holling differentiates between stability and resiliency in his study of spruce budworm, arguing that resiliency is "the ability of a system to maintain its structure and patterns of behaviour in the face of a disturbance" and that managing for stability reduces resiliency.<sup>153</sup> B.C.'s forests, thus simplified, were weakened, and their biological diversity, soil structure, and watershed health became vulnerable. Although decades of management for sustained yield have altered forest ecosystems, the resulting falldown did make forestry more responsive, forcing consideration of change and contingency into planning. From

---

<sup>151</sup>Marchak, *Green Gold*.

<sup>152</sup>Daniel Botkin, *Discordant Harmonies: A New Ecology for the Twenty-First Century* (New York: Oxford University Press, 1990).

<sup>153</sup>C.S. Holling, "The resilience of terrestrial ecosystems: local surprise and global change." In *Sustainable Development of the Biosphere*, eds. W.C. Clark and R.E. Munn (Cambridge: Cambridge University Press, 1986), 296.

the 1980s onward, multiple values and the interrelatedness of the forest ecosystem had a role in forest management.

#### **4.2. The Falldown of B.C.'s Forests: Industry and Communities**

The falldown effect was also manifest in economic concerns and political conflicts. As the prospect of an assured, healthy and continuous yield was thrown into question, B.C. suffered a reforestation backlog, as well as economic recession. The Sloan Commission's recommendations had implicitly favoured high levels of investment, and the Ministry of Forests chose bids from larger and inherently more secure companies. Through the 1960s, industry had been stable, and wages increased. From 1956 to 1976, annual harvests increased and firms became more vertically concentrated; that is larger, and more centralized.<sup>154</sup> But this stability was challenged by the 1970s, when questions began about the durability of the forest resource base emerged and harvests began to level off. By the recession of the early 1980s, multinational capital was pulling out of the province, and companies that remained were forced to restructure their operations and finances to the detriment of thousands of employees. Outdated infrastructure was modified, while less profitable operations closed. The forest sector was adrift in a shifting and confusing economic situation marked by new computerized technology, specialized products markets, and ongoing softwood lumber trade disputes with the U.S.<sup>155</sup> Economically speaking, the long boom was over, and it was time for new strategies in order to stay afloat.<sup>156</sup>

At the macro-level, a viable industry, continued competitiveness in the market, and high export value were the goals to be sustained. The health of companies and the business-government relation that underlay the forest industry were at stake. At a micro-level the jobs of thousands of forest workers and the ways of life for many Canadians were threatened. Many communities were recognized as "resource-dependent"; simply put, forests need to be sustained because they in turn sustain communities. This had been recognized since the Sloan Commissions, but took on increasing urgency. The CFS hired its first sociologist in 1993, and in the compilation of Criteria and Indicators for Sustainable Forest Management, listed indicators

---

<sup>154</sup> Pearse, *Timber Rights and Forest Policy in British Columbia*.

<sup>155</sup> Roger Hayter, *Flexible Crossroads: the Restructuring of British Columbia's Forest Economy* (Vancouver: UBC Press, 2000).

<sup>156</sup> Economic issues are "bracketed" in this thesis, as they are not my central concern. This is not to detract, however, from their central place in B.C.'s forests.

of sustainable forest communities.<sup>157</sup> Efforts to develop local level indicators in each province and in communities would follow.<sup>158</sup> Though difficult to define, community sustainability might be summarized as the combination of community capacity, community well-being, and community resilience.<sup>159</sup> Obviously, higher levels of employment and income due to industry in a community are significant for its health. But economic well-being cannot automatically be equated with social-well-being. Because of their rapid growth or the transient, seasonal nature of some workers, forestry communities can lack the social infrastructure to coalesce around major issues in any sustained and unified manner.<sup>160</sup> Forest sociologists Thomas Beckley *et al.* suggest that well-being indicators for communities may be better than forest-related indicators; well-being could increase as forestry activities decrease.<sup>161</sup> The social capital found in community sustainability is a key factor in the social dimension of sustainability, and it has been argued that more attention should be paid to its role.<sup>162</sup> In B.C., mill closures and massive layoffs have affected many parts of Vancouver Island such as Lake Cowichan and Port Alberni.<sup>163</sup> Some towns rebound; Chemainus is known as the “town that did” for its revitalization and for the visitors attracted there by a series of widely advertised murals. In Clayoquot Sound, the decision to halt clear cutting of old-growth and to follow restrictions recommended by the Scientific Panel left many without jobs in the forest industry, but a booming tourism economy provides new sources of employment. Some local residents, of course, view the shifting character of life in this situation as negative. Jobs in tourism generally pay about one-third of a logging job on

---

<sup>157</sup> These indicators were: number of communities with significant forestry component in the economic base; diversity of the local industrial base; and diversity of forest use at the local level.

<sup>158</sup> This was actually one of the Model Forest initiatives during Phase II. In B.C., the LBMF did not complete this task.

<sup>159</sup> Thomas Beckley, John Parkins, and Richard Stedman, “Indicators of Forest-Dependent Community Sustainability: The Evolution of Research,” *Forestry Chronicle* 78, no.5 (September/October 2002): 626-636.

For a more thorough review of each concept and its attendant dimensions, such as sense of place and social capital, see the special issue of the *Forestry Chronicle* dedicated to community sustainability (September/October 1999, Vol.75, No.5).

<sup>160</sup> Marchak, *Green Gold*; Reed, *Taking Stands*.

<sup>161</sup> Beckley, Parkins, and Stedman, “Indicators of Forest-Dependent Community Sustainability.”

<sup>162</sup> Mark Roseland, “Natural Capital and Social Capital: Implications for Sustainable Community Development,” in *Communities, Development, and Sustainability Across Canada*, ed. J.Pierce and Ann Dale (Vancouver: UBC Press, 1999), 190-207.

<sup>163</sup> See Figure 4.1 for a map of Vancouver Island.

Vancouver Island and may not have the same employment benefits.<sup>164</sup> Tourism also opens the area up to new forms of development and use that may not be sustainable.

#### **4.3. Sustainable Development Discourse in B.C.'s Forests**

These ecological and economic changes required new policies and politics, resulting in a burst of new initiatives by the 1990s. The government was certainly forced to reconsider its relationship with the forest industry—an entity that, on one hand, yielded tax revenues from its operations, but that on the other, opened the Ministry of Forests (and more broadly the government and the citizenry of B.C.) to criticism. Premier Mike Harcourt designed a sustainable development policy for B.C. in 1989, collecting and repackaging many of the NDP's existing programs. Its main facets were pledges to negotiate aboriginal land claims, encourage more value-added forest products, and try new ways of resolving land-use disputes.<sup>165</sup> Unlike the broader mandates of the federal government, these issues were specific to B.C. These new initiatives were announced with caution as well, for the NDP relied on the support of both environmentalists and workers.<sup>166</sup>

In some ways, this attempt to recognize troubles and plan for a more healthy forest environment rested on the same motivations as Ottawa's Forest Sector Strategies and Green Plan. However, the province was forced to address specific economic and political objectives; it held direct responsibility for the forest industry, and thus its "sustainability strategies" were less abstract and more focused on tangible and difficult objectives. This speaks to the very nature of sustainable development discourse; as it appears at different levels of governance, it forces the consideration of issues contingent on that scale, shaped by the responsibilities, limitations and freedoms of each. Subsequent actions/policies/agendas then require a range of modifications and responses; some are necessarily more stringent than others.

---

<sup>164</sup> Maureen Reed, "Implementing Sustainable Development in Hinterland Regions," in *Resource and Environmental Management in Canada*, ed. Bruce Mitchell (Toronto: Oxford University Press, 1995), 335-359.

<sup>165</sup> Michael Harcourt, "Sustainable Development: B.C.'s Growing Future: 1989 Legislative Program for Sustainable Development," (Victoria: Government of B.C., 1989); A. Scott, John Robinson, and D. Cohen; eds., *Managing Natural Resources in British Columbia: Markets, Regulations, and Sustainable Development* (Vancouver, UBC Press, 1995).

<sup>166</sup> Wilson, *Talk and Log*.

### 4.3.1. Forest Reform and Sustainable Development

Three general categories of forest reform warrant mention. First, the tenure system. This has been much scrutinized but attempts to modify it have largely failed. Second, forest practices. These were to be systematically regulated in a Forest Practices Code, intended to balance the multiple values of forests and mitigate the negative effects of timber harvesting. And, finally, land-use zoning moved to a new comprehensive planning approach based on regional zoning processes. Alongside these three main categories are other issues such as pricing, timber supply regulation, and Aboriginal involvement.<sup>167</sup>

The attempts to change tenure in the 1990s were merely the most recent in a long string of efforts. Licences have grown in size, and holders' obligations have changed slightly, but as Michael Howlett points out, over time, tenure arrangements become so institutionalized in law that change is not really possible without high costs.<sup>168</sup> But this system was designed to support a large, stable forest industry that would create favourable economic conditions for growth. Volume-based licences were seen as the easiest way to do this. Some still argue that tenures can be economic instruments to help achieve objectives of public forest policy.<sup>169</sup> Since the late 1980s, new actors on the "policy scene", such as First Nations and small business advocates, have brought new ideas, and some have obtained minor concessions. The community forest tenure now held by 17 groups is one such example. The ownership of a licence by a community offers great potential for alternative forest management, although communities can and some do merely lease the rights to a large company and ask for a different distribution of the profits.

The harvesting practices within licences were also targeted for reform in the 1990s. The B.C. Forest Practices Code was intended to ensure the ecological sustainability of forests. Introduced in June 1995, the Code represented the consolidation and refinement of the collection of previous federal and provincial statutes and regulations. Before the Code, the government was not adequately empowered to control forest practices, and the rules were not clear and

---

<sup>167</sup> Each of these receives a chapter-length treatment in Benjamin Cashore *et al.*'s *In Search of Sustainability*; see pp. 176-206; 120-139; and 140-175.

<sup>168</sup> Michael Howlett, "The Politics of Long-Term Policy Stability: Tenure Reform in British Columbia Forest Policy," in *In Search of Sustainability: British Columbia Forest Policy in the 1990s*, ed. Benjamin Cashore *et al.* (Vancouver: UBC Press, 2001), 94-119.

<sup>169</sup> David Haley and Martin Luckert, "Tenures as Economic Instruments for Achieving Objectives of Public Forest Policy in British Columbia," in *The Wealth of Forests: Markets, Regulation, and Sustainable Forestry*, ed. Chris Tollefson (Vancouver: UBC Press, 1998), 123-151.

complete.<sup>170</sup> The tenure system effectively “placed industry in the driver’s seat” by leaving responsibility for operations planning and monitoring with companies; the Code was intended to provide new strategies for supervision that would ensure that problems with forest practices would be discovered quickly and corrected. However, it would not change the tenure system. The Code has been described as a “series of cascading laws and rules” that placed administrative regulation rather than market forces or economic incentives at the helm of compliance.<sup>171</sup> As a result, goals and objectives shifted towards environmental considerations, with more formalized instruments and mandatory, rather than older non-binding agreements, for environmental protection. The high amount of regulation forced significant additional cost burdens onto the industry and imposed a corresponding strain on their finances. The Code has since been suspended and replaced by a results-based approach to forest management. The Code does illustrate how broader public pressures for environmental requirements were felt at not just the agenda setting but also at the decision-making, implementation and revision stages. Despite the necessary role of experts in the technical matters, the pressures applied by voters and by environmentalists (who by the early 1990s had shifted the “venue” of forest politics into the international arena by depicting B.C. as the “Brazil of the North”) had produced action<sup>172</sup>; and the effort that went into the Code did signify a clear shift in priorities, with real attention given to the sustainability agenda. This agenda still had to be worked out, however, within the confines of a largely stagnant tenure system; these were incremental changes typical of sustainable development.

Land-use zoning is the third arena of reform, and some issues of general relevance are of note here. While forest companies and their workers did not want to lose any land base, an increasing environmentalist voice demanded more protected areas as well as the space for recreation and other values. The NDP government of Premier Harcourt had come to power partially upon the support of the “green” electorate; they were conscious of the need to satisfy

---

<sup>170</sup>Tracey Cook, “Sustainable Practices? An Analysis of BC’s Forest Practices Code,” in *The Wealth of Forests: Markets, Regulation, and Sustainable Forestry*, ed. Chris Tollefson (Vancouver: UBC Press, 1998), 204-231.

<sup>171</sup>Cook, “Sustainable Practices?”

<sup>172</sup>George Hoberg, “The 6 Percent Solution: The Forest Practices Code,” in *In Search of Sustainability: British Columbia Forest Policy in the 1990s*, ed. Benjamin Cashore et al. (Vancouver: UBC Press, 2001), 61-93.

these voters through a politically important protected areas strategy.<sup>173</sup> The movement for protected areas had received a valuable boost from the Brundtland Commission's suggestion that the total percentage worldwide be raised from 3% to 12%, and the World Wildlife Fund Canada drew on this emergent discourse to support its campaigns for endangered species and ecosystems. An inventory of the development and preservation status of valleys up and down the B.C. Coast found that only 9 of 354 watersheds were fully protected, and this coincided with work being done on the importance of old-growth forests in many of these watersheds.<sup>174</sup>

The B.C. government's decision in 1992 to conduct regional land-use planning through a Commission on Resources and the Environment (CORE) was also significant.<sup>175</sup> This entailed division of the province into geographic sectors with roundtables to declare new land use policies in the Cariboo-Chilootin, Vancouver Island, West Kootenay-Boundary, and East Kootenay. CORE would prove to be an arduous endeavour. It was a move towards a more participatory model of "stakeholder representation", and offered explicit acknowledgement, by the government, that a broader range of values was necessary in decision-making. It is important to note that plans for multistakeholder integration such as CORE and the Model Forest Program make much of their ability to bring different and opposing interests "to the table", and thus imply that the sum of all these opinions in a commission, roundtable or Model Forest board meeting somehow equals out to consensus. It is not clear whether such meetings reshaped existing power dynamics between sectors and cultures, or merely provided a more publicity-friendly forum for haggling and direct interaction while reinforcing entrenched identities. Extensive interviews with CORE participants yielded statements such as "the playing field was not equal; the extreme power imbalance stemming from the companies' rights to the land undermined any potential for equality in the process". Another participant remarked that, "it became more like a contract

---

<sup>173</sup> Jeremy Wilson, "Talking the Talk and Walking the Walk: Reflections on the Early Influence of Ecosystem Management Ideas," in *Canadian Forest Policy: Adapting to Change*, ed. Michael Howlett (Toronto: University of Toronto Press, 2001), 94-126.

<sup>174</sup> Wilson, "Talking the Talk."

<sup>175</sup> Mae Burrows, "Multistakeholder Processes: Activist Containment versus Grassroots Mobilization," in *Sustaining the Forests of the Pacific Coast: Forging Truces in the War in the Woods*, eds. Debra Salazar and Donald Alper (Vancouver: UBC Press, 2000), 209-230; George Hoberg, "How the Way We Make Policy Governs the Policy We Make", same volume, 26-53.; and Tanis Frame, Thomas Gunton and J. C. Day, "The role of collaboration in environmental management: an evaluation of land and resource planning in British Columbia," *Journal of Environmental Planning and Management* 47, no.1 (2004): 59 – 82 offer more focused treatments of CORE. There is divided opinion on CORE's legacy; Burrows argues that it was not truly integrative in its conception and design, while Hoberg suggests that it did signify a step towards both the inclusion and institutionalization of new values in forest policy.

negotiation than a consensus procedure".<sup>176</sup> By the time of its cancellation in 1996, CORE had led to frustration and failure. The Vancouver Island CORE did not include Clayoquot Sound, the north and south Gulf Islands or the south and midcoast forest districts. Nor would the Crown tenure system and logging practices be discussed in CORE roundtables. With the exclusion of these contentious places and topics, CORE did not function as a forum for substantive issues on the Island. Political scientist Jeremy Wilson has called this forest land use planning "experimentation on a leash."<sup>177</sup>

"Tough parts" of the province exist because traditional ideals of forest management intersect with an increasingly strong environmentalist presence in B.C., and forests are no longer exclusively the domain of the forester. Thus far, we have seen a range of things that various actors want to sustain. Communities want to stay alive and vibrant. They commonly make their case or defend themselves through industry, unions, town meetings, etc., in order to sustain people and the "places" that the movements of people, goods and capital have made. Politicians and parties want to sustain their positions and satisfy the electorate. Forestry seeks to sustain productive forests, but also economies and (increasingly) whole ecosystems. Environmentalists have brought more consideration of values like biodiversity to forestry, and lobbied for protection of old-growth forested watersheds. They are concerned with what they see as loss of wilderness and of ecological and spiritual treasures but many of them are not from the places they seek to "save" and do not take into account what it means to stop logging. These are the sorts of "reckonings" facing B.C., and they emerge differently across places.

#### **4.4. Places and Reckonings**

The wilderness politics of B.C. are immensely important, and no full understanding of environmentalism in the province can be delivered in a few paragraphs. The subject has been dealt with admirably elsewhere<sup>178</sup>, but does need to be briefly explained here, if only to situate B.C.'s forests and especially Clayoquot Sound as some of the most contested ground in Canada. Wilderness politics in B.C. is not only about forests. There are numerous other focal issues and advocacy groups. These may be more or less concerned with specific features such as fisheries or

---

<sup>176</sup>Burrows, "Multistakeholder Processes", 221-222.

<sup>177</sup> Wilson, "Talking the Talk."

<sup>178</sup> See Reed, *Taking Stands*; Salazar and Alper, *Sustaining the Forests of the Pacific Coast*; W.T. Stanbury, *Environmental Groups and the International Conflict Over the Forests of British Columbia, Canada* (Vancouver: SFU-UBC Centre for the Study of Government and Business, 2000); and Wilson, *Talk and Log*.

wildlife; the recreationalist or hunter-angler interest in the environment has long historical roots.<sup>179</sup> They also can take the form of multi-issue coalitions stemming from international organizations, or have local foci.<sup>180</sup> But all beg the question: how have environmental movements induced a discourse of challenge and transition in forest practices?

Focal points of conflict emerged “valley-by-valley” when environmentalists and/or First Nations protested clear-cut harvesting plans in old-growth forested watersheds through the 1980s and 1990s. This was largely a coastal phenomenon, although in 1977, a coalition was formed to protest the opening of logging via a new road in the Stein Valley near Lytton.<sup>181</sup> These and other sites of conflict forced the Social Credit government into a containment position, but the movements were too strong and numerous, and it was evident that the voting public was interested in protecting wilderness.<sup>182</sup> In Clayoquot Sound, the MacMillan Bloedel proposal for clear-cut logging on Meares Island in 1980 was opposed by environmentalist and First Nations groups, who argued for the island’s scenic and cultural importance. This alliance was successful in blocking logging by 1985. After 1988, the activities of MB in the Carmanah Valley, also on Vancouver Island, crept closer to stands of giant Sitka spruce, and this triggered a massive campaign by the Western Canada Wilderness Committee<sup>183</sup>. Fletcher Challenge also faced a blockade of its planned operations in the Walbran in 1989. To the north, there was collaboration between local Haida people and environmentalists to halt logging on the South Moresby archipelago in Haida Gwaii. The Haida were acting to defend a land claim, while environmentalists sought a protected reserve. After Haida blockades of Lyell Island and protracted environmentalist lobbying, the federal government decided to purchase cutting rights to the area in 1987 and set aside the South Moresby National Park Reserve; the Haida land claim was not addressed.

While there were confrontations in the Kootenays and other places in the interior, the movements around coastal forests more successfully tapped into international environmentalist concern. They used direct action techniques and a savvy media presence, especially in contrast to the publicity efforts of forest companies, to get a worldwide audience. This international strategy

---

<sup>179</sup> Wilson, *Talk and Log*.

<sup>180</sup> See *Ibid.*, Appendices 1, 2, and 3, for a comprehensive list of environmental groups in B.C.

<sup>181</sup> Islands Protection Society, *Islands at the Edge: Preserving the Queen Charlotte Islands Wilderness* (Vancouver: Douglas and MacIntyre, 1984); Michael M’Gonigle and Wendy Wickwire, *Stein: the Way of the River* (Vancouver: Talonbooks, 1988).

<sup>182</sup> Wilson, *Talk and Log*.

<sup>183</sup> Tania Halber, “Ancient Temperate Rainforest and the Carmanah Giant: A Case Study of Activism” (master’s thesis, Stirling University, 2003).

would be prominent in Clayoquot Sound above all others. By appealing to international anxiety about deforestation, environmentalists also tapped into a vein of particular importance to Canada-its reputation as forest nation. By undermining Canada's ability to manage and sustain its forest on the world stage, protesters forced government and industry on the defensive. This generated a good deal of "counter-publicity", (and the Model Forest Program might be viewed cynically as such), but it also forced provincial governments, especially in B.C., to rework their strategies for forest policy and its associated relationships.

This brief introduction points to the multifaceted, complex, and even contradictory nature of environmentalism in B.C. Many urban Vancouverites who fought against old-growth logging did not assemble to protest development and pollution of green spaces within municipal boundaries. Many people neither went to Clayoquot Sound nor lay down in front of trucks but still advocated change. Actors and motives are easily seen as polarized, especially in the provincial media and in forest policy debates. CORE, for example, generated confusion and anxiety about just how community livelihoods would be affected, and led those who were worried about jobs as well as other uses of the forests to coalesce into one undifferentiated mass of industry proponents protesting on the legislative steps in 1994. This oversimplification tends to obliterate environmentalists' and forestry workers' identities as people, with personalities, abilities, and flaws, and to obscure the possibility that they might hold multiple interests. Maureen Reed's (2003) work on the women of forestry towns on northern Vancouver Island delves into identity in forest politics. By finding gender as a common contour, she bypasses binary constructions, showing how social and community relations are central to environmental politics and policy-making. This allows a depiction of people as social actors, rather than just categories to be appeased and incorporated in a public policy arena. Many of the women who protested against logging reductions in the North Island described themselves as environmentalists for their support of the loggers who cultivate and physically dedicate themselves to the forest, and feel closer to the forest than environmentalists from cities or other countries, seen as interlopers who "don't work" and are simply afloat on multinational capital. Environmental historian Richard White points to how environmentalists often take two problematic positions towards work in nature; one, that it is equated with destruction, or that certain types of work, such as farming, are ways of knowing nature, and thus become romanticized. "There are, of course, numerous thoughtful environmentalists who recognize fruitful connections between modern work and nature, but they operate within a larger culture

that encourages a divorce between the two.”<sup>184</sup> And workers themselves, engaged as they are in the forest as workplace where social and ecological interactions are fused, have defended their relationship to nature and held counter-protests.

#### 4.5. First Nations and Forest Politics

These nuances are also important to keep in mind when thinking about First Nations in the forest sector. The First Nations position on logging has been dynamic, highly contingent on places and personal experiences, and in no way reflective of a stereotypical “ecological Indian” identity.<sup>185</sup> The quest for rights to land and resource management fundamentally shapes aboriginal involvement in resource management. While First Nations groups have worked for environmental protection, they also have members who work in the industry, and forestry has given economic opportunity to reserve residents. Like members of other “categories”, aboriginal people possess complexity and agency, and their role cannot be readily ascribed to one single position.

The oft-cited notion of B.C.’s forest politics as the “war in the woods” stems from literatures that stitch together a narrative of rising environmentalist concern and public consciousness. Much of this focuses on the interface of environmentalists and forestry companies; some criticizes B.C. forest policy in no uncertain terms; some recommend alternative visions of forestry such as ecological forestry that conceives of the forest as a “home”; yet another strand lashes out at the constraints imposed on innovation by the current tenure system.<sup>186</sup> All tend to sideline the struggles of B.C.’s First Nations to achieve sovereignty and that goal’s intimate linkage to forest policy. Indigenous peoples across the province have articulated visions of forestry prioritizing both economic development and cultural integrity.

---

<sup>184</sup> Richard White, “Are You an Environmentalist or Do You Work for a Living?” in *Uncommon Ground: Toward Reinventing Nature*, ed. William Cronon (New York: W.W. Norton and Company, 1995), 171-185.

<sup>185</sup> Shepard Krech, *The Ecological Indian* (New York: W.W. Norton and Company, Inc., 1999).

<sup>186</sup> Cheri Burda, Fred Gale, and Michael M’Gonigle, “Eco-forestry versus the state(us) quo: or why innovative forestry is neither contemplated nor permitted within the state structure of British Columbia,” *BC Studies* 119 (1998):45-72; Cashore *et al.*, *In Search of Sustainability*; Patricia Marchak, Scott Aycok, and Deborah Herbert, *Falldown: Forest Policy in British Columbia* (Vancouver: Ecotrust Canada and the David Suzuki Foundation, 1999); Michael M’Gonigle and Ben Parfitt, *Forestopia: a Practical Guide to the New Forest Economy* (Madeira Park, B.C.: Harbour Publishing, 1998); and Michael M’Gonigle, “Living Communities in a Living Forest: Towards an Ecosystem-Based Structure of Local Tenure and Management,” in *The Wealth of Forests: Markets, Regulation, and Sustainable Forestry*, ed. Chris Tollefson (Vancouver: UBC Press, 1998), 152-185.

Many, such as aboriginal law advocates David Boyd and Terri-Lynn Williams-Davidson, argue that aboriginal control of forests will promote more sustainable forestry.<sup>187</sup> Since the 1970s, First Nations have had limited opportunities in the tenure system. In 1973, the Forest Act was amended to allow for woodlot licences of up to 400 hectares for bands. At least thirteen First Nations had used this opportunity to combine forested parts of their reserves with Crown land. The Tl'azt'en Nation also obtained a Tree Farm Licence in 1981.<sup>188</sup>

These were concessions within a larger system that did not recognize the rights of First Nations to land and self-government. Recognition of Aboriginal title and indigenous peoples' inherent claim to self-government came in the Supreme Court 1997 *Delgamuuk'w* decision. The provinces are now obligated to negotiate land claims, and aboriginal participation in forest policy-making has increased considerably due to this and other court decisions supporting the political activism of First Nations. Aboriginal title is not land ownership, but a unique category somewhere between public and private property, which provides provincial First Nations with a set of enforceable property rights. In the early 1990s, the government sought to increase aboriginal forest sector involvement in the tenure system by using the treaty process. Thus far, only the Nisga'a claim (2000) has a significant forest portion.<sup>189</sup> The Nisga'a own all forest resources on their lands, and have a TFL with a set AAC. Because the treaty process is ongoing and represents a long-term solution to aboriginal title cases and their resource management implications, the B.C. government formed the First Nations Forestry Council to increase indigenous involvement in the short term. Interim Measures Agreements (IMAs) were negotiated to acknowledge the rights and responsibilities of the provincial and First Nations governments in given areas, as well as provide for integrated resource management in each location until permanent treaties were negotiated. This also meant the identification of areas and trees that were culturally modified or otherwise important markers of traditional life where logging was planned. The most famous IMA was in 1994 signed with the Nuu-chah-nulth Nation of

---

<sup>187</sup>David Boyd and Terri Williams-Davidson, "Forest People: First Nations Lead the Way Towards a Sustainable Future," in *Sustaining the Forests of the Pacific Coast: Forging Truces in the War in the Woods*, eds. Debra Salazar and Donald Alper, (Vancouver: UBC Press, 2000, 123-147; Holly Nathan, "Aboriginal Forestry: the Role of First Nations," In *Touch Wood: B.C. Forests at the Crossroads*, eds. Ken Drushka, Bob Nixon, and Ray Travers (Madeira Park, B.C.,: Harbour Publishing, 1993), 137-170.

<sup>188</sup>Howlett, "Policy Venues, Policy Spillovers, and Policy Change."

<sup>189</sup>See British Columbia, Legislative Assembly, Select Standing Committee on Aboriginal Affairs, "Towards Reconciliation: Nisga'a Agreement-in-Principle and British Columbia Treaty Process-First Report-July 1997," Second Session, Thirty-sixth Parliament Legislative Assembly of British Columbia, July 1997.

Clayoquot Sound. This agreement allowed a framework for joint management of area resources under the authority of a Central Region Board, equally composed of provincial government and Nuu-chah-nulth representatives. Following the IMA, MB and the Nuu-chah-nulth agreed to use ecoforestry practices and promote non-timber values in return for assistance from environmental groups in marketing timber products. Finally, MB gave its rights to the area to a new joint venture, Iisaak Forest Resources, in 1999.<sup>190</sup> This company was 51% owned by 5 bands, and 49% by MB. This intersection of forest and aboriginal policies was unprecedented, like many experiences that would unfold in and around Clayoquot Sound, and it produced dramatic policy changes.

#### 4.6. Clayoquot

Clayoquot Sound is technically defined as a 350,000-hectare area on the west coast of Vancouver Island. The “sound” is not merely a large oceanic inlet (see Figure 4.1), but encompasses a variety of ecosystems within coastal temperate rainforest. The defining features of this region are its forested valleys and the interface with water. Nine of the large forested watersheds remain unlogged and are primarily old growth. The freshwater streams and rivers are home to many species and are critical spawning grounds for salmon populations, while the diverse landscapes of the tidal environment—deep channels, estuaries, mudflats, sand beaches—support a range of marine life and provide wintering and migratory stopover spots for birds. The Nuu-chah-nulth have utilized this marine life with their own knowledge system and methods<sup>191</sup>, and many fishers participate in both traditional management strategies and the contemporary industry of the Sound, which is regionally important alongside forestry.

In the late 1980s, this seemingly remote region became a prominent node in debates about sustainable forest management. Those who lived at the western edge of the island would be subject to international media coverage and bear witness to the largest act of civil disobedience in Canadian history. The political situation in Clayoquot grew intense due to the various groups that “formed a fluid set of alliances in their struggles to win the greatest influence with respect to government decision-making on land and resource use in the area”.<sup>192</sup> These

---

<sup>190</sup> Howlett 2001, “Policy venues, policy spillovers, and policy change.”

<sup>191</sup> Diane Newell, *Tangled Webs of History: Indians and the Law in Canada's Pacific Coast Fisheries* (Toronto, University of Toronto Press, 1993).

<sup>192</sup> Rod Dobell and Martin Buntun, “Sound governance: the emergence of collaborative networks and new institutions in the Clayoquot Sound region,” Background paper for Clayoquot Sound Regional Workshop, September 25, 2001, 11.

alliances shifted as conflict heated up in the region after the successful blockade of Meares Island. The discovery of landslides caused by logging road building near Sulphur Creek in the northeast region of the Sound led to a blockade there in 1988. All of this coincided with and augmented efforts by concerned residents in the town of Tofino to build a sustainable development strategy for the region.

The first major initiative pointed to this end was the Tofino Steering Committee on Sustainable Development, which operated from 1989 to 1990. Its major contribution was a statement on sustainable development sent to Victoria, asserting that “new and innovative planning mechanisms [are] needed to meet the challenges of the next decade.”<sup>193</sup> This document recognized the importance of environmentally sensitive forestry practices as well as the economic need to maintain, through those practices, the best long-term interests of the community. The Committee wanted to prevent the “destruction of biological and environmental resources that are essential, or could prove to be essential, for economic growth in the Clayoquot Sound region.” Thus, sustainable economic growth was the priority, and the environmental attributes of the Sound were defined by financial value.

The provincial government appointed the Clayoquot Sound Sustainable Development Task Force in 1990 as an experiment in consensus building and to facilitate the preparation of a community-based strategy for sustainable development. After a year, the Task Force declared that it could not deliver what was expected of it, and that “the process failed in both theory and application to establish either a solid foundation or a viable framework for consensus building.”<sup>194</sup> Reasons cited for this failure included poor communications as well as a history of confrontation and deeply entrenched positions. Tofino was still green and scenic enough to attract tourist dollars and home to many environmentalists, while Ucluelet was scarred by clear cuts, more populated by people who still “worked for a living” and less likely to diversify. Representatives from these communities had markedly different perspectives on the future.

The Task Force recommended an interim director to pull together a background report and to develop strategy with a steering committee. Environmentalist Robert Prescott Allen headed up this effort, which was known as the Clayoquot Sound Sustainable Development

---

<sup>193</sup> Steering Committee for Sustainable Development, “Responding to the Challenge: Community-based sustainable development.” A brief to the Environment and Land Use Committee of the B.C. Cabinet by the Steering Committee for Sustainable Development, District of Tofino, 1990, 23.

<sup>194</sup> Craig Darling, “In Search of Consensus: An Evaluation of the Clayoquot Sound Sustainable Development Task Force Process. (Victoria: The University of Victoria Institute for Dispute Resolution, 1991).

Strategy Steering Committee (CSSDSSC). He succeeded in drafting a report on the Sound's resources and options, including numerous suggestions for forest management. But the steering committee could not find consensus on a final report. Angered by neglect of the issue of logging in the short term, all environmentalist representatives resigned. "The decision to continue clear-cutting the intact forest of the study area, during a process based on principles which include 'conserving the diversity of nature' and 'ensuring that all uses of renewable resources are sustainable' confirms the current planning process can be no different than the rest"<sup>195</sup>, wrote the environmental representatives in May 1991. The tourism representative also resigned for similar reasons, feeling that the economic value of tourism in unlogged watersheds was not adequately protected. Despite this, the CSSDSSC struggled on until it admitted defeat in October 1992. The government was left alone to make a land use decision. Years of trying to build consensus had failed; Clayoquot Sound had immense difficulty with the multiplicity of desires and processes at hand. Divisions had grown entrenched and each attempt at compromise produced agitations anew.<sup>196</sup> The stage was set for a more explosive, concentrated expression of disapproval, as the provincial government embarked on the "dirty work" of creating a land use plan for the region. In April 1993, the B.C. government announced the Land Use Decision for Clayoquot Sound as a solution to end the "war in the woods." This was a moderate plan. It added 48,000 ha. to the 39,000 ha. already protected, making the total protected area 33%. Another 17.5% of the Sound was slated for "special management" as scenic corridors. These decisions were estimated to lower the area AAC by a third and cause the loss of 400 jobs. The rest of the region was left open to logging<sup>197</sup>. Angry at what they saw as inadequate protection of forests in the plan, thousands protested. Environmentalists, already angered and disillusioned by the CSSDSSC process, whipped up massive support from around the world and led blockades of MacMillan Bloedel operations in the summer of 1993. Environmental group Friends of Clayoquot Sound organized a "peace camp" at the "Black Hole", a large clearcut framed by landslide-scarred mountainsides. For nearly three months, thousands of protestors lived in the camp and many went daily to the Kennedy River bridge, where they lay down to block the morning entry of MacMillan Bloedel's logging trucks. Over 856 people had been arrested for civil disobedience in this manner by the

---

<sup>195</sup>"Resignation of all environmental representation from CSSDSSC." Letter submitted to Director, CSSDSSC, 21 May 1991.

<sup>196</sup> Warren Magnussen and Karena Shaw, eds., *A Political Space: Reading the Global Through Clayoquot Sound* (Montreal and Kingston: McGill-Queen's University Press, 2002).

<sup>197</sup> Wilson, *Talk and Log*.

end of the summer. The acrimony that burned during this battle of the war in the woods would not be forgotten amongst members of the LBMF in the next year.

For all the negativity, this inaugurated a new era in Clayoquot Sound. Henceforward, forest management would have to be negotiated on an entirely different plane than in the past decades of the industrial paradigm. The concept of multistakeholder planning processes was born from the alliances of First Nations, environmental groups and community members who had blockaded Meares Island. These alliances together demanded new recognition, research and responses from traditional structures of governance with regards to sustainable development. The B.C. Commissioner on Resources and Environment, Stephen Owen, proposed establishment of an independent mechanism to review current forest management practices in Clayoquot Sound and suggest standards for monitoring. Thus the Scientific Panel for Sustainable Forest Practices in Clayoquot Sound was created. This group of experts was selected for their demonstrable impartiality and status within their field, and consisted of academics from a number of disciplines as well as regional Nuu-chah-nulth communities. The resultant combination of scientific and traditional knowledge was thought to be an ideal and world-class standard for forest management practices. By 1995, an operating protocol and set of principles had been developed, largely from the Nuu-chah-nulth approach to group processes.<sup>198</sup> A selection of the Panel's stances on Nuu-chah-nulth involvement are listed in Appendix 1, and demonstrate a remarkable reflexivity towards science and knowledge production. "In sum, the Panel concluded that ecosystem management means a shift in focus, during the planning and harvesting processes, from the revenue removed to the values that remain".<sup>199</sup> Changing focus would also require caution and constant adaptation; forest ecology, like ecology as a whole, was and is subject to shifting paradigms and consideration of the chaotic processes at work in disturbance regimes. This is why the Panel suggested that the use of "western modern science" be tempered with traditional ecological knowledge. It also held that land-use decisions should not be used to bias any comprehensive treaty negotiations. The government implemented all 125 suggestions, which had noticeable short-term effects on the levels of harvesting practiced in the Sound and shifted logging towards variable retention harvesting<sup>200</sup> rather than the cutblocks of the past. In

---

<sup>198</sup> See Dobell and Martin, "Sound Governance", Annex C.

<sup>199</sup> Ibid., 16.

<sup>200</sup> The B.C. Ministry of Forests defines variable retention harvesting as "An approach to forest planning and forest harvesting in which structural elements of the existing forest are retained throughout a harvested area until at least the next rotation to achieve specific management objectives. Varying amounts, types, and spatial patterns of living and dead trees are retained.

its review of forest practices, the Panel used Nuu-chah-nulth perspectives to criticize and suggest reforms to policy. The recommendations did bring job losses, although many found employment in the booming tourism industry, and new sense of a mixed and uncertain identity filtered through the region. This would come to affect the LBMF, which in the face of decreased forest employment, chose to focus largely on non-timber aspects of sustainability.<sup>201</sup>

#### **4.7. Conclusion: The Model Forest Program: Federal Visions Through Provincial Lenses**

This chapter has scanned B.C. forest politics from sustained yield through to the recent reconfiguration of land use planning in Clayoquot Sound. A few conclusions can be reached about what sustainable development meant and what it “did” in B.C. Firstly, the industrial regime shaped forest policy and attitudes in the province in countless inextricable ways. It produced a close business-government relationship, one even more prominent than at the national level. The power of the forest industry thwarted early practices that it found costly (such as selective rather than clear cutting), and made change difficult. Of course, business power does not always have the ability to produce political power. The B.C. government, especially under the NDP, was conscious of the need to balance the demands of its voters. That being said, restrictions on the industry were at first incremental and piecemeal. That environmental and First Nations coalitions were able to mobilize against this inertia speaks to their strength, and to the support given their mandate elsewhere in Canada and across the world. First Nations politics are also of more than symbolic importance in BC, and especially in Clayoquot. Sustainable development discourse made space for indigenous knowledge and had new respect of their culture and presence; their increasing recognition as stakeholders allowed a sense of repossession. That being said, sustainability is a culturally specific term, and one that cannot necessarily be translated directly (this will be discussed in Chapter 5).

B.C.’s experience with sustainable development also reveals the powerful roles of transition and uncertainty in affecting change. The boom-bust nature of the forest industry had

---

Variable retention uses all silvicultural systems, from single tree selection to clear cutting, including the retention silvicultural system, to achieve variable retention over a landscape.” B.C. Ministry of Forests and Range, “Glossary of Forestry Terms in British Columbia, July 2007” Available at [http://www.for.gov.bc.ca/hfd/library/documents/glossary/Glossary\\_June2007.pdf](http://www.for.gov.bc.ca/hfd/library/documents/glossary/Glossary_June2007.pdf).

<sup>201</sup> According to Gardner-Pinfold’s Model Forest Program Evaluation, “In the Ucluelet area alone, approximately 300 workers have apparently lost their jobs as a result of reduced harvest operations. In effect, this makes the Model Forest’s current choice of objectives, focusing largely on the non-timber parts of sustainability, both reasonable and relevant. However, it is only fair to note that some people in the area object very strongly to this approach” (24).

long affected communities and workers, but the sense that the forest was not regenerating threw long-term stability into question in a new and frightening way. The increasing empowerment of citizens and the loosening of the expert circle of forestry allowed those affected by forest practices to demand new forms of management, in new fora such as land-use planning bodies or by joining new types of alliances that had not existed in the past. But this played out in different ways across the province, creating an uneven geography of attention to forest issues.

International interest was whipped up by the idea that B.C.'s coasts held a valuable rainforest, a northern version of the diverse and spectacular forests of South America. Old-growth coastal forest was so beautifully rendered in posters and coffee table books that it became more "charismatic" than the boreal forests of the north, or the dry interior pines. Forest planning was certainly conflicted and important in other regions, such as the Kootenays, but Clayoquot Sound was unprecedented. It is now protected and organized through methods far unlike the clear cutting that still continues in the north and inland.

This uneven geography makes for an interesting study in contrasts between the two Model Forests located in B.C. The McGregor forest is 7.7 million hectares in the north central interior of British Columbia, the heartland of Canada's softwood lumber producing region. The Model Forest encompasses the city of Prince George and extends from the northern reaches of the Caribou region to the northern limits of the Fraser River drainage basin. It has been a successful member of the CMFN, generating many reports on ecology and forest practices as well as using a sophisticated decision-support system. The dominance of industry in its composition and the lack of much direct conflict has helped this, although a mountain pine beetle infestation is currently affecting the area and circumstances could change. The McGregor forest seems to make sense within the MFP mandate, and does not represent a challenge to the status quo in B.C.

The LBMF, on the other hand, was a much more daring choice, and opened up a new avenue for the variety of voices to be heard in Clayoquot Sound. To Forestry Canada, the nascent Scientific Panel and plans for an IMA negotiation indicated that problems would die down, and that a model forest there could be relatively safe if ensconced in the frameworks of expert, "impartial" knowledge. The land use decision and Clayoquot protests had not yet occurred. Nervousness must have arisen immediately in 1993, and continued as the LBMF stumbled through its formative years, but the political expedience of Nuu-chah-nulth involvement and the opportunity for positive publicity in the internationally prominent Sound kept the LBMF "in the game." But its presence would highlight just how greatly definitions of sustainable development

would vary across the province, how the assemblage of concerns within sustainable development would be skewed this way or that according to the local context, cultures, and history.

B.C. was not supportive of the MFP in general, embroiled as it was in forest politics by 1991.<sup>202</sup> It forced Ottawa to agree that Model Forests would not contribute to any changes in policy or focus in the province; this restriction would have hamstrung the role of the MFP, were it not already so minor, in affecting actual change. An initial hope for the MFP was perhaps found in its selection guidelines; Model Forests are described as entities that might, through their research and partnership work, help put institutional change into motion, as an essential ingredient for more sustainable forestry.<sup>203</sup> But the very nature of provincial power over forests limits this. A tenure system that has remained essentially the same and the business-government relationship in B.C. make change difficult. Additionally, changes in legislation, like the Forest Practices Code, can and did “overtake and affect” Model Forest activities.<sup>204</sup> In a diverse forest nation such as Canada, relations between the MFP and provinces are bound to vary. In B.C., direct engagement was limited, and the Ministry of Forests likely considered its Model Forests to be less than consequential. Its vision of sustainable development was bound up in the massive importance of the forest industry to the B.C. economy, with increasing concessions to other stakeholders. Vancouver Island in particular was a place where the increasing environmentalist presence was tempered by the immense importance of the forestry industry, and by concerns about the economic ramifications of setting aside land for protected areas.<sup>205</sup> The messes of the war in the woods had made many wary of multistakeholder planning processes, and especially of possible ramifications of the federal government’s attempt to appear in the midst of Clayoquot Sound. For all that, the LBMF was established, and it would serve as an interesting point of contact between many different notions of sustainability.

---

<sup>202</sup> Beyers, “The Forest Unbundled.”

<sup>203</sup> Forestry Canada, “Background information and guidelines for applicants.”

<sup>204</sup> Gardner-Pinfold, “Evaluation of the Canadian Model Forest Program.”

<sup>205</sup> Angus Reid Group. “Forestry issues on Vancouver Island-Final Report submitted to the Vancouver Island Community Coalition.” Angus Reid Group, Inc., 1994.

## Chapter 5

### The Disorder Within: New Perspectives on the Long Beach Model Forest

*"The Long Beach Model Forest has struggled to find its way through significant internal and external turmoil."* –Canadian Forest Service, Phase II Evaluation Report, 2002

#### 5.1. Introduction: A Failure in 2002

This tersely worded statement from the Model Forest Program evaluation team indicates the turmoil that marked a model forest in Clayoquot Sound. In 2002, after eight years of troubled existence, the Long Beach Model Forest (LBMF) lost its funding and its Society was disbanded. In the judgment of the evaluators, it was a conspicuously unsuccessful attempt at multi-stakeholder planning. The Phase II report by the CFS offered the following conclusions<sup>206</sup>:

"Despite agreeing on a common vision, goals and objectives, ... the individual interest groups often operate at cross purposes. The turnover of general managers contributed to this situation."

"...[multi-stakeholder planning] requires that personal agendas be set aside in favour of achievement of common purpose-something that cannot be imposed and which has not happened in the case of the Long Beach Model Forest."

"Few effective partnerships appear to have been established over the lifespan of this entire forest."

"With a few exceptions, research projects undertaken by the Long Beach Model Forest have been of a short duration (1-2 yrs) and in general lack a common theme-there is no research strategy. Many projects proposed in annual work plans were never initiated."

"The Long Beach Model Forest programs have concentrated on the ecological and social spheres of sustainable forest management, and only more recently have expanded into areas that would be of more immediate interest to the bottom-line oriented forest industry participants."

"The Long Beach Model Forest, of all the Canadian Model Forests, has the greatest potential to act as a laboratory to explore and test the social side of sustainable forest management. Because of the divisive issues, history of conflict and polarized positions of the various interests in Clayoquot Sound the Long Beach Model Forest was required to address personal values, emotions and beliefs in its attempt to forge a partnership and develop a program."

---

<sup>206</sup> CMFN, "Long Beach Model Forest-Phase II Evaluation Report," Canadian Forest Service: Government of Canada, 2002.

Anxieties and conflicts appeared in early discussions of planned structure, in local newspaper coverage, in minutes and agendas, and most of all, in correspondence.<sup>207</sup> The LBMF and CFS were in constant dialogue about the purposes and role of "Model Forests". Even those with relatively brief connections to the LBMF initiative expressed disquiet. At the end of a board meeting that she had been invited to attend, a visitor from another Model Forest in the international network voiced her disappointment at the tone of the proceedings. Another person who had been asked to sit on the Board refused after one meeting, citing the lack of focus on long-term strategy issues and daily squabbles.<sup>208</sup> In most accounts, the LBMF appears as a fractured entity, a site of continued entrenchment and personal conflict. Yet it is inappropriate to conclude that failure and acrimony were the sum of the LBMF experiment or to see it, simply and completely, as a late-dying casualty of the war in the woods, poisoned from the outset by its location in Clayoquot Sound's networks of polarization? On the contrary, the LBMF offers a rich site of interrogation and its history yields much insight into the social dimensions of sustainability. By deconstructing, examining, and redeveloping notions of what the LBMF project symbolized, I hope to offer new perspective. In my view the choice of Long Beach within British Columbia was an attempt to include a certain ecological landscape, the coastal rainforest, as well as emphasize Forestry Canada's commitment to the participation of First Nations in sustainable forest management.

## **5.2. "We Are Not Even Sure What the Forest Is"**

British Columbia sent 12 submissions in response to Forestry Canada's call for Model Forest proposals in 1991. Three of these were located on Vancouver Island. The "Area C Model Forest", would become the Long Beach Model Forest. Prepared and submitted jointly by the Regional District of Alberni-Clayoquot (RDAC) and the Clayoquot Sound Sustainable Development Strategy Steering Committee (CSSDSSC) in February 1992, this proposal encompassed electoral district "C" of the Regional District. It encompassed 400,000 hectares on the west coast of Vancouver Island from Hesquiaht Peninsula in the northwest to Barkley Sound in the southeast; and included the settlements of Hesquiaht, Hot Springs, Ahousaht, Opitsat,

---

<sup>207</sup> As I could not access any internal planning documents revealing how Forestry Canada viewed the LBMF proposal, I am forced to extrapolate. Records of the deliberations of the National Advisory Committee on a final selection of Model Forests were not available.

<sup>208</sup> Streetly, Joanna, "Letter of resignation to LBMFS; position of alternate director of recreation, 5 March 1998."

Tofino, Esowista, Ucluelet, Port Albion, Ittatsoo and Toquaht.<sup>209</sup> Seven of these are Nuu-chah-nulth First Nations communities and many of the 400,000 hectares lay within their traditional territories. Tenure arrangements at the time of the proposal, included large TFLs held by Macmillan Bloedel and Interfor; Timber Licences<sup>210</sup> held by Canfor; a Forest Licence, and Woodlot Licence held by the Ahousaht Band; and harvesting activities on Crown land (the Arrowsmith Timber Supply Area) allocated for timber sales under the Small Business Forest Enterprise Program of the Ministry of Forests.<sup>211</sup> The 400,000 hectares also contained three provincial parks and three protected areas under an ecological reserves program. The LBMF area is depicted in Figure 5.1.

Following the guidelines and the orientation of the Model Forest Program outlined in the call for submissions, the Area C proposal emphasized the role of management practices. It declared the need for a regional planning framework that “[identified] a specific forest with a specific set of users.” Elaborating on this need the framers of the proposal continued: “At this first step, we do not even know who are the users of this forest or what their requirements are. This is abundantly evident given the level of resource use conflict in Area C. We are not even sure what the forest is that we are managing”.<sup>212</sup> The proposal is brief and vaguely worded, but it strongly emphasizes the need for a “sustainable development strategy” in the area. Thus, a desire for order was projected from the federal level into Clayoquot Sound, and from organizational bodies within the Sound. The messages of objectivity, neutrality and scientific practice emanating from the Model Forest Program surely signaled and encouraged those who seeking opportunities to develop a baseline of information, delineation and working plans in a conflicted landscape. The other main goals identified in the Area C proposal were to demonstrate best sustainable forestry practices utilizing advanced technology, and to integrate non-timber resources. The list of proposed activities and deliverables thus included hiring “a general forester to coordinate the activities of the Model Forest” and completing “work on lines of operability [areas classified for timber harvesting] on all areas within the Model Forest.”

---

<sup>209</sup> LBMF, “Orientation Background Information Package, Proposed Long Beach Model Forest,” Port Alberni: RDAC-CSSDSSC, 1993.

<sup>210</sup> A Timber Licence is a type of area-based tenure that is no longer issued; the land in question would revert back to the government once harvested and reforested. See B.C. Ministry of Forests and Range, “Glossary of Forestry Terms in British Columbia, July 2007.”

<sup>211</sup> RDAC-CSSDSSC, “Proposal for ‘Area C Model Forest’ to the Canadian Model Forest Program,” Port Alberni, B.C., 1992.

<sup>212</sup> RDAC-CSSDSSC, “Proposal for ‘Area C Model Forest,’” 16.

In June 1992, the National Advisory Committee accepted the Area C proposal. Its language and values were in line with the strategies expressed in the guidelines to applicants; it also had the cachet of location in a coastal rainforest environment and the politically expedient potential for involvement by the Nuu-chah-nulth. But it was not clear to the forest service that all forest values were incorporated. Comments on the proposal, provided by Forestry Canada in 1992, included a list of weaknesses such as “the [proposal] focuses heavily on the need for even more preservation”; “research proposals are vague and rather undefined”; and “technology use and transfer is weak and lacks significant commitment to share results and progress with others.”<sup>213</sup> The conflict around land allocation and use in the Sound also complicated the beginnings of the LBMF; the provincial government requested that planning activities for the model forest be delayed until the completion of the April 1993 Clayoquot Sound Land Use Decision.<sup>214</sup> The newly-created interim Board of Directors decided to delay its proceedings until the negotiation of the Interim Measures Agreement for Clayoquot Sound. On the same day, Premier Harcourt began the necessary protocol discussions with Central Region Chiefs.<sup>215</sup>

Even as the Model Forest staff was built and reports and plans accumulated, forest policy in the region was shifting. These changes were not uniform across the LBMF. In Clayoquot Sound, the Central Region Board became the principal advisory body to the provincial government on land use decisions and planning. The types of forestry practiced also changed as a result of the Scientific Panel recommendations in 1995. A whole new set of research and organizational activities focused on monitoring and assessing forest practices were planned around the Panel’s work. Prior to the Land Use Decision in 1993, 81 percent of Clayoquot Sound had been designated as available for logging; this was reduced this to 40%, with 34% absolutely protected and 21% zoned for special management (which allows for some “sensitive” logging while ensuring care for wildlife, recreation, and scenic values). In the more southern Barkley Sound, the Forest Practices Code was the main influence on forest practices and operations. As discussed in Chapter 4, the Code required more stringent regulation of industry by the Ministry of Forests, but did not necessarily amount to environmental improvement.

---

<sup>213</sup> Forestry Canada, “Model Forests: summary of proposals,” 22.

<sup>214</sup> LBMFS, “Long Beach Model Forest: The First Six Months. Annual Report 1994-1995,” LBMF Society: Ucluelet, B.C., 1995.

<sup>215</sup> The Nuu-chah-nulth nations are governed by the Nuu-chah-nulth Tribal Council, which consists of fourteen local band governments grouped into three regions. The Central Region includes the Ahousaht, Hesquiaht, Tla-o-qui-aht, Toquaht, and Ucluelet First Nations. These are the Nuu-chah-nulth nations who participated in the LBMF.

### 5.3. Formative Years: What the LBMF *Was* and *Wasn't*

The “operational beginnings” of the LBMF are considered to be January 1993. The program was established through a Memorandum of Understanding (MOU) between Forestry Canada and the B.C. Ministry of Forests on January 5, 1993, which endorsed the Partners Program, provided common objectives for the development of Model Forest Agreements, and recognized federal and provincial jurisdictions in the development of Model Forests.<sup>216</sup> Similar MOUs were the basis of all other Model Forest agreements in the Program. In the Canada-BC MOU, compliance with provincial legislation, statutes and policies is a restriction on the activities in the LBMF- specifically, consideration for provincial rights and obligations for annual allowable cut, carrying out land use planning according to the Commission on Resources and Environment, approval of land and resource management plans and the implementation of provincial policies and procedures of provincial agencies or programs. Establishment of a Model Forest changed neither existing jurisdictional arrangements, nor existing land-use approval processes for making site-specific management decisions related to a wide variety of forest uses. However, the LBMF could undertake “land-use management *related* activities when the tenure holders, agencies, First Nations, etc., who have legal control allow them, and when they are endorsed by the existing jurisdictional authorities.”<sup>217</sup> These arrangements created space for research within the interstices of existing legal, economic, and social frameworks in Clayoquot Sound, but navigation of these interstices would be fraught with difficulty and research results would emerge in certain contingent ways.

A public information package from 1993 offers a series of “question and answer” tidbits to clarify the LBMF’s role; in response to “Does the Clayoquot Sound land-use decision bind the Model Forest in any way?” comes the answer that the LBMF deals with “questions related to accommodating the balanced use of all forest values within areas which are broadly subject to existing forest use activities”.<sup>218</sup> This does not explicitly discuss what “dealing” would be, how it would be conducted, and where places for this rather amorphous role would lie. More helpfully, the early orientation documents describe what the Model Forest was *not*: a substitute source of revenue for contractual obligations of tenure holders or for existing government program obligations; a forum where one or more sectoral interests deny the opportunity of the others to

---

<sup>216</sup> Canada-British Columbia, “Memorandum of Understanding-Canada-B.C. Agreement for implementation of Model Forest Program in the Province of British Columbia,” January 1993.

<sup>217</sup> LBMF, “Orientation Background Information Package.”

<sup>218</sup> Ibid.

have their forest-use interests and values accommodated; or a vehicle that usurps or interrupts current resource management regulatory processes. Legally, the relationship with the province was restrictive; the LBMF was “to apply new and innovative approaches, procedures, techniques and concepts in the management of the LBMF which are incremental to and compatible with B.C. Ministry of Forests programs and the rights and obligations of licensees, permittee and any other tenure holder”.<sup>219</sup>

By and large, the governance structure of the LBMFS displayed more “hinged” power (that is, flexible roles and entryways to input on Model Forest Activities) than was typical of other Model Forests. The LBMF Board of Directors had fourteen classes of membership; each sector was composed of persons who had a primary interest in or belonged to an organization with a primary interest in that particular category. Individuals could only participate in one of the categories. Figure 5.2 illustrates these sectors as well as some of the main players in each. Unlike any other Model Forest, the LBMFS adopted a shared decision making process in which resolutions required unanimous agreement. A fundamental commitment and founding principle of the LBMFS was to facilitate discussion between interests and goals and build agreement rather than to vote or reach majority consensus on the package of projects, programs, activities, and research that the model forest would “do.” This was intended to flatten and redistribute the scale of loss; traditional bargaining and majority-governance practices involve gains by one party whose interests are supported through the vote, and direct losses for another group. In unanimity and consensus, each party might have to compromise to an extent, but was afforded some measure of representation in the final decision, so that theoretically there were no totalistic notions of winning or losing. Furthermore, as defenders of the Model Forest continually argued, motivation for cooperation lay in the realization that sectoral interests were interdependent, and that any one party therefore required the support or action of others to achieve its goals.<sup>220</sup>

Participants were to be involved in the design and development of the process itself as well as any negotiation of substantive issues.<sup>221</sup> So they could not simply focus on their needs and tell their own narratives, but were actively forced to engage and participate through activities such as developing a vision for what the LBMF would be and do; establish goals with clear statements of the “desirable end products” for each sector; define criteria to measure the effectiveness of methods to achieve these goals; create alternative ways to achieve goals if all interests were still

---

<sup>219</sup> Canada-B.C., “Memorandum of Understanding.”

<sup>220</sup> Hubert Beyer, “Model forest-hope for the future,” *The Victoria Times-Colonist* (Victoria, B.C.) 2 August 1995.

<sup>221</sup> LBMF, “Background Orientation Information Package.”

not respected and considered; and finally, reach a compromise on which methods would best meet the goals of the LBMF.<sup>222</sup> This was idealistic- and impractical. In the end, this fundamental commitment to governance by consensus imposed many difficulties and was a central source of strife at LBMF meetings. If a single person left after a meeting had begun, quorum would be lost. Simply deciding how to talk about a topic took time, and the motives of the different groups sometimes created an atmosphere of distrust. Facilitators were necessary upon many occasions.

From the start, it was evident that the LBMF would be pulled in different directions by the perceptions and demands of the communities and especially by the personalities of individuals that it represented, rather than by a focused research and development program centred on forest management practices. The first annual meeting of the LBMF in 1995 was entirely taken up with debates about proper meeting procedure.<sup>223</sup> However, this pressure and debate produced a new expression of what sustainability might mean in Canadian forests. Restricted/ limited though it was to Clayoquot Sound and to a relatively small group of people, the LBMF experience illustrated the social networks and the level of accountability involved in changing forest policies at the local level. This was evident in several ways, in conflict and in difficulty, in the types of projects that were funded, and how those shifted over the years.

#### **5.4. Sustainability as Expressed in LBMF Projects: Science and Management**

According to CMFN guidelines, Model Forests were to be sites of scientific investigation into better forest practices. Their work was purportedly oriented towards management and applicability. Of course, it was acknowledged that the types of projects would necessarily depend on the unique mixture of partnerships and on the ecosystems present in each forest. Monitoring the impacts of forest practices on ecosystems was the major goal of the LBMF throughout its existence, despite variations in output, commitment or agenda stemming from who was in charge of research at the time. Scientific studies conducted were intended to expand knowledge of forest ecosystem processes specifically by identifying inventory needs and relevant indicators; studying the impacts of forestry practices, natural disturbances and climate changes especially in watersheds; understanding the effects of “ecosystem status” on cultural, social and economic structures; expanding information available on the role of riparian areas within the coastal

---

<sup>222</sup>LBMF, “Background Orientation Information Package.”

<sup>223</sup> Lisa Stewart, “Model Forest AGM derailed by procedural wrangling,” *The Westerly News (Tofino, B.C.)*, 22 November 1995.

temperate rainforest watersheds; and researching watershed restoration and the types of partnerships that might make restoration projects possible.<sup>224</sup>

From 1996-1999, research was species-inventory-oriented and thus less linked to actual forest practices. It focused, without significant connections to industry and forest management, on determining local level indicators of biodiversity in wetlands, hydriparian areas of headwater streams, and in inland old growth stands.<sup>225</sup> The main projects that resulted included a study of the ecological consequences of different riparian management techniques; an amphibian inventory in Clayoquot Sound; study of the impact of cedar salvage on the ecological role of downed wood; and site rehabilitation with willow to stabilize slopes, such as those affected by landslides. These projects were selected because they fit with the requirements of the Scientific Panel, which called for acquisition of baseline data, monitoring, attention to biodiversity, and greater riparian protection.<sup>226</sup> Greg Bach, the Ministry of Forests's manager for implementation of the Panel's recommendations, wrote to the LBMF general manager in 1997, stating that the Ministry of Forests was committed to support of the LBMF. But he indicated that this would be contingent on the LBMF's willingness to work in partnership with the provincial implementation team.<sup>227</sup> Many LBMF participants also felt that the LBMF's role was to serve as a mechanism in support of ongoing initiatives external to the Model Forest, such as implementing Panel recommendations.<sup>228</sup> These choices also may have reflected priorities in the communities of the LBMF. Residents who remembered the slides near Sulphur Creek in 1988, were concerned about future instability due to logging, and advocated that type of research.

This was, of course, valuable and produced some baseline understanding of conditions in the Sound. However, it was not the work that the CFS desired from Model Forests. An advisory group was organized by the CMFN in 1998 to survey the LBMF's issues and make recommendations. It observed that, "the LBMF clearly lacks a sustainable forest management focus...research programs, although they cover a broad range of subjects from hydriparian

---

<sup>224</sup> LBMFS, "Long Beach Model Forest: The First Six Months. Annual Report 1994-1995," Ucluelet, B.C.: LBMF Society, 1995.; LBMFS. "Summary of projects 1995-1996." Ucluelet, B.C.: LBMF Society, 1996.

<sup>225</sup> LBMFS, "Monitoring the Impacts of Forest Practices on Ecosystems of the West Coast of Vancouver Island: Project Reports," Ucluelet, B.C.: LBMF Society, 2001.

<sup>226</sup> Scientific Panel for Sustainable Forest Practices in Clayoquot Sound, "Report of the Scientific Panel for Sustainable Forest Practices in Clayoquot Sound, 31 January 1995.

<sup>227</sup> Greg Bach, "Letter to Wally Samuel, LBMF GM: File 10624/LBMF 97-98," B.C. Ministry of Forests: Government of British Columbia, 13 June 1997.

<sup>228</sup> CMFN, "Report of Advisory Group on LBMF to the LBMF Board of Directors," Advisory Group LBMF, Canadian Forest Service: Government of Canada, 1998.

ecology to ethnobotanical work, focus very little on the forest or forest management per se".<sup>229</sup> The LBMF's activities ranged widely, were not linked together in a cohesive program, and certainly reflected the interests of the individual sectors rather than any overall vision of how to manage the forest. There were no programs or projects to develop tools or a plan for promoting best management practices—a central objective of the MFP. However, the LBMF had followed the recommendations of Greg Bach of the Ministry of Forests in his 1997 letter. He had asked that the LBMF provide GIS and community extension assistance; undertake inventory projects pertaining to the Scientific Panel recommendations; and build communication linkages and networks within and between the communities of Clayoquot Sound by public education programs and knowledge transfer activities.<sup>230</sup> Taking this provincial advice had led the LBMF to federal censure, as well as criticism from some factions within its region. This situation testifies to the frustrations that the LBMF must have felt as it attempted to function between federal and provincial definitions of what was best for the forest. The advisory group clearly warned in 1998 that the LBMF needed to "focus on the forest", reduce the number and scope of its goals and objectives, and make a clear vision statement. It further insisted that there would be no point in proceeding with the Model Forest if these recommendations were not implemented.

In response to these and other urgings from the CFS, the focus of scientific research in the LBMF shifted.<sup>231</sup> Efforts to implement Panel recommendations were retained, but in ways that were both more cohesive and more explicitly linked to forest practices. The first step was partnership with the Ministry of Forests, Pacific Rim National Park, and community representatives to build a cohesive strategy. The group established permanent research plots and collected data from them before and after harvest. The results allowed assessment of the immediate effects of Iisaak's harvesting under variable retention patterns and provided baseline information on the attributes of coarse woody debris, windthrow, and dwarf mistletoe in coastal forest conditions.<sup>232</sup> Researchers also worked to identify criteria and indicators of sustainable forest management through workshops with a range of stakeholders.<sup>233</sup> However, this shift was not enough to satisfy the CFS. For all their improvements to reorient Phase II research, focus

---

<sup>229</sup>CMFN, "Report of Advisory Group on LBMF," 5.

<sup>230</sup>Bach, "Letter to Wally Samuel, LBMF GM."

<sup>231</sup>LBMFS, "Minutes of Board of Directors' meeting, February 18<sup>th</sup>, 2000." Ucluelet, B.C.: LBMF Society, 2000; Kevin, Drews, "Model Forest funding withheld pending revamp," *The Westerly News (Tofino, B.C.)*, 19 May 1999.

<sup>232</sup>LBMFS, "Monitoring the Impacts of Forest Practices."

<sup>233</sup>LBMFS, "LBMFS Criteria and Indicators Workshop Proceedings, November 12-13, 1998," Ucluelet, B.C.: LBMF Society, 1998.

remained on ecological dimensions of forest practices, with minimal effort made to emphasize elements of interest to “bottom-line” forest industry participants.<sup>234</sup> The research program still did not involve any strategic landscape level projects, although the Phase II original proposal had listed several.<sup>235</sup> Finally, with criteria and indicators, the types of indicators that the workshops ended up focusing on required visits at the stand level, rather than remote sensed indicators at the landscape level.<sup>236</sup> The CFS would have preferred remote sensing, as it was one of the advanced technologies that shaped their vision of the Model Forest Program.

The LBMF’s science program was also criticized for its extensive use of students and youth interns, which required the research coordinator to spend too much time mentoring them.<sup>237</sup> The research coordinator wrote a defense of this to the CFS, pointing out that she “spends a substantial amount of time mentoring and supervising young scientists as a result of the LBMF’S mandate to build capacity for sustainable forest management within the local community”.<sup>238</sup> Here was the crux of the conflict between the perceptions of sustainability held by the LBMF and the CFS. Perhaps the LBMF should have done more to create a coherent vision and to structure its research programs strategically. But what it did do was engage with science in a way that revealed the personality and contingency of knowledge production. Rather than an overarching, objective epistemology, science in the LBMF was entirely characterized by the interplay of various agendas. This is true elsewhere in forestry and in science as a whole, but in the LBMF’s region, the power dynamics and social expectations were in such a state of flux that the usual masking of the very human dimensions of science projects—the struggles, erasures, and processes that go into their creation—were plainly exposed. The presence of a new cache of funds from the federal government gave ample opportunity for the tensions behind research to play out in the LBMF.

More than this, these developments show that the LBMF did not isolate the various facets of sustainability as the CFS did. The way that the CFS ran the MFP shows a very compartmentalized sense of what each facet meant and what could be accomplished. The LBMF,

---

<sup>234</sup>CMFN, “Long Beach Model Forest-Phase II Evaluation Report.”

<sup>235</sup>LBMFS, “Long Beach Model Forest Society Revised Phase II Proposal submitted to Natural Resources Canada,” Ucluelet, B.C.: Long Beach Model Forest Society, 1998.

<sup>236</sup>LBMFS, “LBMFS Criteria and Indicators Workshop Proceedings”; LBMFS, “Criteria and Indicators and Monitoring Programs. Report on progress, October 2001,” Ucluelet, B.C.: LBMF Society, 2001.

<sup>237</sup>CMFN, “Long Beach Model Forest-Phase II Evaluation Report.”

<sup>238</sup>LBMFS, “Comments on CFS Long Beach Model Forest-Phase II Evaluation Report,” Ucluelet, B.C.: LBMF Society, 2002.

by hiring First Nations and student interns to conduct research, was supporting the people and communities within its region. For this, it was lauded locally and within the MFP.

### 5.5. Sustainability as Expressed in LBMF Projects: Empowerment and Complexity

From the start, the LBMF was cognizant of the opportunities that it might provide its region. It also was poised for criticism. The LBMF was in a difficult position between the mandates of the federal government and the particular conflicts of Clayoquot Sound, and was effectively marginalized due to the number of activities in the Sound.<sup>239</sup> However, it was still the focus of much community discussion and concern. Examination of the LBMF's appearances in the local press reveals the conflicts it faced, but also the personal agendas of its supporters and detractors. Reporters were there and all too willing to document that "Splits threaten the Long Beach Model Forest" or that the "Model Forest AGM [was] derailed by procedural wrangling".<sup>240</sup> Several of the outwardly negative articles were written by the *Alberni Valley Times* editor, and targeted environmentalists as the problem within the Model Forest.<sup>241</sup> Both geographical and stakeholder-based acrimony were evident here. Residents of Port Alberni and Ucluelet have typically had more industry-oriented perspectives than those of Tofino who have inclined to adopt or support environmentalist and pro-tourism positions. One such environmentalist had a regular column in Tofino's *Westerly News*.

The opinions frequently displayed in newspaper articles on the LBMF reveal a good deal of the cross-currents of interest among and the demands of a conflicted and opinionated regional population.<sup>242</sup> Individuals from the LBMFS would air their grievances about its struggles to newspapers at times. For example, the interim general manager told a reporter in 1995 that "the

---

<sup>239</sup>CMFN, "Report of Advisory Group on LBMF to the LBMF Board of Directors."

<sup>240</sup> Rob Diotte, "Splits threaten Long Beach Model Forest," *Alberni Valley Times* (Port Alberni, B.C.) 31 August 1993.; Sonya Klausat, "LBMF gets failing grade in gov't report," *The Westerly News* (Tofino, B.C.) 12 December 2001; Stewart, "Model Forest AGM derailed by procedural wrangling"; [unknown], "District withdraws support for LBMF," *The Westerly News* (Tofino, B.C.) 11 March 1998; and [unknown], "Long Beach Model Forest fate uncertain," *The Westerly News* (Tofino, B.C.) 7 November 2001.

<sup>241</sup> Diotte, "Splits threaten Long Beach Model Forest"; "Model Forest no help to Alberni-Clayoquot," *Alberni Valley Times* (Port Alberni, B.C.) 4 November 1996.

<sup>242</sup> Yet there are some articles that seem more "objective" in tone.

Leanne Ritchie, "Possible community forest back on table," *The Westerly News* (Tofino, B.C.) 1 December 1999; "Model Forest Interp Centre to close," *The Westerly News* (Tofino, B.C.) 8 March 2000; "LBMF monitoring program gets funding boost," *The Westerly News* (Tofino, B.C.) 31 January 2001. All of Ritchie's articles seem to report all types of news about the LBMF with a more "neutral" perspective.

model forest is succumbing to governmental politics.”<sup>243</sup> This candor must have caused more friction within the LBMF, as it made their troubles public, but this also testifies to the frankness that characterized all dealings in Clayoquot Sound. These articles also indicate a critical awareness of employment dynamics in the Alberni-Clayoquot region on the part of the reporters. For example, one reporter comments that the Model Forest

“is another overlap of federal-provincial responsibility with money borrowed on the federal level doing marginal work...this federal program is a subsidy for *no-work* (emphasis added) but instead of giving the loggers something to do it is hiring many of the people who opposed the Model Forest in the beginning...Ottawa has such a low presence out here perhaps they dearly want a way to show taxpayers they are doing something for us with all the money we give them. However, enough is enough. The Model Forest is no different than any of the short-term, marginal-worth job creation schemes coming out of Parliament these days. The added rub out here is what is happening to our forest industry while some people play around in the woods on the federal payroll.”<sup>244</sup>

The use of “*no-work*” as well as the mention of people who “play around in the woods” evokes the same dynamics of change and conflict as Richard White’s question-“are you an environmentalist, or do you work for a living?”<sup>245</sup> Anyone who is not logging is merely “playing”; their relationship to the forest is not work but is defined as “no-work.” Interestingly, this reporter also suggests how “it would be better to transfer the funding and the focus to an area where the forest is still working” –so if the Model Forest was not in a state of transition and still had an entirely forest-based economy where interactions with the forest were shaped by labour and productivity, it might have been successful. With this observation, he reveals an understanding of the forest-practices-oriented mandate of the Model Forest Program, as well as an understanding of just how far the LBMF was from that mandate.

Nuu-chah-nulth versus non-aboriginal press coverage is another notable aspect of LBMF documentation. Despite the amount of funding that the LBMF gave to Nuuchahnulth communities, few clippings from *Ha-shilth-sa*, the Nuuchahnulth newspaper, are in the LBMF archives. Possibly, the LBMF staff did not consider reading *Ha-shilth-sa* for clippings, or it may be a real absence, perhaps a failure to communicate. At any rate, those articles found in *Ha-*

---

<sup>243</sup> Jolanda Waskito, “Frustrated at indecision of Model Forest Board,” *The Westerly News* (Tofino, B.C.) May 24<sup>th</sup>, 1995.

<sup>244</sup> Diotte, “Model Forest no help.”

<sup>245</sup> White, “Are You an Environmentalist or Do You Work for Living?”

*shilth-sa* were of a more positive tone and documented projects of value to indigenous communities.<sup>246</sup>

With its diverse partnership structure and the politicized nature of relationships in the Sound, it would have been impossible for the LBMF to ignore the Nuu-chah-nulth, or to give them a less than prominent role and access to funding. In the years after the proposal to log Meares Island, a tsunami of research inundated Clayoquot Sound. This brought money and projects from elsewhere, but also created a legacy of exclusion, marginalization, and eventually distrust. Locals harboured a strong sense that researchers were simply “mining” the area for data and then taking their results back to the university or city was strong.<sup>247</sup> Recognizing this, the LBMF wanted to build community capacity, and develop a skilled pool of local people. During Phase I, employment and training were provided extensively.<sup>248</sup> “Some people wonder if we’re going to be decision-makers, but we’re not, we’re just providing education and training and information to the communities”.<sup>249</sup> Yet this work was seen as “no-work” by some, not as a viable substitute for the industry work that was being phased out. This was likely because the benefits did not come in the tangible form of individual living wages comparable to logging jobs, save for the few who did work as full-time LBMF employees, and also because those jobs in question may have been given to people who were already classified as “no-workers” in the region. The LBMF created a visitor centre, the Rainforest Interpretive Centre, with environmental education programs to benefit both residents and visitors. It offered training in GIS to any interested community members, and also attempted to collect and build collections of various kinds of data about the region. It was oriented towards capacity-building with First

---

<sup>246</sup> Nadine Spence, “Youth Futures Forum in Tofino,” *Ha-Shilth-Sa (Port Alberni, B.C.)* 25 March 1999; Denise Ambrose, “Clayoquot Sound Science Symposium,” *Ha-Shilth-Sa (Port Alberni, B.C.)* 18 December 1996.

<sup>247</sup> The LBMF played a role in developing some research protocol to lessen this, such as their guidelines for TEK research in 1996. More recently, the Clayoquot Alliance for Research, Education, and Training at the University of Victoria produced a *Standard of Conduct for Research in Northern Barkley and Clayoquot Sound Communities*. The Standard of Conduct was developed under the guidance of a working group that included members of the local community and the central region Nuu-chah-nulth First Nations. It is meant to guide Clayoquot Alliance-sponsored research in ways that are mutually beneficial to communities, First Nations and universities alike. It is available at <http://www.clayoquotalliance.uvic.ca/PDFs/CLARETStdConV1Jun03.pdf>.

<sup>248</sup> LBMFS, “Long Beach Model Forest Society Revised Phase II Proposal.”

<sup>249</sup> LBMF General Manager Wally Samuel in Lisa Stewart, “Model forest feels it's "finally on track,” *The Westerly News (Tofino, B.C.)* 16 November 1995.

Nations, not specifically towards capacity-building for all disenfranchised by the war in the woods.<sup>250</sup>

### 5.5.1. The Nuu-chah-nulth and the LBMF

LBMF projects overall reflected a strong tendency towards funding First Nations initiatives. For example, the Hesquiaht First Nation received support for Rediscovery Summer Camps, a sea urchin management project, forest training, a cedar bark projects, and an integrative “Managing for a Living Hesquiaht Harbour” project.<sup>251</sup> Other First Nations found assistance with GIS training, a library, salmon enhancement, or watershed research, among other things.<sup>252</sup> A special focus was on youth, with summer science camps for the Nuu-chah-nulth and provisions for older students to be interns. The LBMF asserted that this type of work was important for sustainable forest management. Building capacity as well as improving understanding of First Nations cultural values would allow better overall understanding of social structures, trends, and interactions impacting forest resource uses and perceptions.

A Director and an Alternate represented the Central Region Nuu-chah-nulth on the LBMFS Board, with members on the GIS Communities Committee and in the Traditional Ecological Knowledge Working Group.<sup>253</sup> Having this representation led to interpersonal working relationships on the Board and in the committees, but through Phase I, the projects that involved First Nations did not seem as linked to the forest and forest practices as desired by the Model Forest Program. The Chiefs and other interested people who attended the LBMFS annual meeting in 1997 suggested that although LBMF projects had been of use to their people, the LBMF needed to foster broad community cooperation. They also indicated that they lacked a clear sense of what enhanced aboriginal involvement meant in the LBMF, and expressed concern about the efficacy of the Model Forest, after the deletion of a key Goals and Objectives component relating to evaluating forest management quality.<sup>254</sup> A provincial government

---

<sup>250</sup> Nuu-chah-nulth Tribal Council. “Statement of interests by the Tla-o-qui-aht, Hesquiaht, Toquaht, and Ucluelet First Nations regarding the Long Beach Model Forest Society.” Statement to the LBMF Board of Directors, 1993. The Nuu-chah-nulth made their desires for the Model Forest known to the Board of Directors from the start of the Model Forest’s activities.

<sup>251</sup> LBMFS, “Summary of projects 1995-1996.”

<sup>252</sup> LBMFS, “Report: Status of the Long Beach Model Forest Program GIS Program as of May 1996,” Ucluelet, B.C.: LBMF Society, 1996.

<sup>253</sup> LBMFS, “Long Beach Model Forest Society Revised Phase II Proposal.”

<sup>254</sup> LBMFS, “Chronology and Narrative of First Nations Involvement in the Long Beach Model Forest, 1992-1997,” Ucluelet, B.C.: LBMF Society, 1998.

representative called for its removal, suggesting that it was improper for the Model Forest to be evaluating provincial forestry policy, even in its own region. The decision to drop this evaluation of forest management goal this sent a signal to the Chiefs and to other sectors that the Model Forest mandate was increasingly constrained, and that it might not be centrally engaged with forestry issues in the area. Saliency and involvement was key for the Nuuchahnulth, and they did not see this in the LBMF; the Chiefs asked at this point if the Board of the LBMF was functional.<sup>255</sup> The role that First Nations played in exchanges such as this shows that they were concerned about the weaknesses of the LBMF, and unsure of its usefulness. Like many others, they were also uncertain as to what the Model Forest's role was in the region. As it was excluded from any activities that would challenge or even approach provincial forest policy, it also shied away from working with the new Central Region Board, displaying reluctance to develop any operational relationships with it. Thus, for much of the Model Forest's existence, it empowered communities and individuals through many of its projects, but its difficult position with regards to the provincial jurisdiction and the federal demands left it open to criticism; most importantly, this may have kept it from really engaging with other institutions and working together for meaningful change in integrated management. Yet although its hands were tied from two directions, the LBMF still managed to conduct some significant research into TEK and its centrality in Clayoquot Sound.

### **5.5.2. Hahuulthi and Other Engagements with TEK**

Any research involving TEK is innately shaped by the power relationships that underlie the whole process of knowledge integration and co-management. As activist Mae Burrows has suggested in her work on CORE roundtables, it is unrealistic to assume that playing fields are equal, and that a promise of objectivity will result in a planning process that challenges existing power dynamics.<sup>256</sup> The idea that integration results in neutrality or best possible outcome ignores these power dynamics, the underlying positionality and location of given actors. This is best understood through the claim that different epistemologies can be combined in one hybrid system that is improved by its multiple facets. Despite the best intentions or open-mindedness displayed by participants, actual social negotiation entails the confrontation and negotiation of confusion and multiple subjectivities. Just as the orderly steps of a scientific experiment reduce this into a framework and present a coherent signal, meetings, reports and projects bring together

---

<sup>255</sup>LBMFS, "Chronology and Narrative of First Nations Involvement."

<sup>256</sup>Burrows, "Multistakeholder Processes."

various actors and in their production, describe a transition from the very situatedness or polarization of each to their convenient disappearance in an overarching compromise or new practice. Yet the inscription of multiple viewpoints into one document does not allow or question the workings of power/knowledge.

This is of value when considering the interactions of First Nations and non First-Nations peoples in Model Forests across Canada, and more specifically, the Nuu-chah-nulth First Nation experience in the Long Beach Model Forest. One motivating factor for the addition of the LBMF, despite its obvious troubles, was the political expediency of having a Model Forest so purposefully made space for the aboriginal people of its region from the start. The opportunity to work on “issues” such as the integration of TEK and scientific management was certainly circumscribed by the precise mandates of the Canadian Forest Service and there was neither acknowledgement nor reframing of the conventional power dynamics intrinsic to the combination of aboriginal and non-aboriginal knowledge. However, some of the projects in the LMBF actually faced down this issue and displayed unique approaches to knowledge sharing that reflected respect and creativity on the part of both Nuu-chah-nulth and LBMF researchers.

### **5.5.3. TEK in Clayoquot Sound**

Recognition of TEK was institutionalized in Clayoquot Sound through the mandate of the Scientific Panel for Sustainable Forest Practices in 1995, an expression of both Nuu-chah-nulth and non-aboriginal desires for the region. The Panel recounted how the Nuu-chah-nulth have complex systems of naming and classifying local phenomena, and asserted its hope that “Clayoquot Sound [might] become a model for including traditional ecological knowledge and interests of indigenous peoples in sustainable ecosystem management”.<sup>257</sup> It further documented Nuu-chah-nulth culturally important areas, and made a series of recommendations for the inclusion of First Nations’ perspectives in future resource management plans. These were broadly listed as: more clear recognition of the close interrelationships that exist among the forests, waters, and marine ecosystems in Clayoquot Sound; recognition of the importance of Nuu-chah-nulth perspectives and traditional knowledge; inclusion of Nuu-chah-nulth people and perspectives in decision-making; provision of education for non-Nuu-chah-nulth forestry workers to understand Nuu-chah-nulth perspectives; and for training and employment opportunities for Nuu-chah-nulth in forestry activities.<sup>258</sup>

---

<sup>257</sup> Scientific Panel, “Report of the Scientific Panel on Sustainable Forest Practices,” ix.

<sup>258</sup> Ibid.

This set the tone for the centrality of TEK in the LBMF, but was certainly not the first expression of Nuu-chah-nulth importance to area resource management. In fact, it was the latest in a series of increasingly powerful moves by the Nuu-chah-nulth. In 1980, the Nuu-chah-nulth Tribal Council (NTC) produced a definitive statement on the land question as it waited to enter the treaty process with the government, asserting that it was ready to negotiate, but frustrated with years of having its rights and resources “trampled on.” It compiled this into a brochure with other statements of Nuu-chah-nulth rights in 1990. The quotes from elders clearly illustrate important concerns about the future of Nuu-chah-nulth culture and intrinsically, the land and sea on which they live.

“We’ve got to leave something to the younger generation of today, something to be proud of.”<sup>259</sup>

“...They knew how to preserve, they knew what conservation meant. They looked after what they owned. Looked after it day in and day out. They did not over-use their resources, although there was plenty. They were so careful about it. That’s what we are talking about. That’s what our aboriginal rights are based on.”<sup>260</sup>

The Nuu-chah-nulth had been politically assertive about their relationships to the environment long before scientists embodied it in the Panel; importantly, they had also offered cogent statements on something akin to sustainability, even before Brundtland. This should not be read as a simple championing of their ability to precede the popularity of the concept, however. Although indigenous peoples worldwide have been active in seeking sustainability, it must be recognized that sustainability is a cultural concept, and a western one at that. To talk about sustaining something, such as resources, implies, first, that there is convergence on what nature means: it is to be used and extracted in a manner that supports economies. It also invokes a notion of time, of human presence and relationship to time in the past, present, and future that is not necessarily shared across cultures. This grows even more complex in relation to “sustainable development”—how are First Nations to relate to a liberal environmentalism that reinforces the primacy of the market and other circuits of capital that have long been agents of dispossession? As an elder commented at the Enhanced Aboriginal Involvement Group meeting in 1998, “the term sustainable development does not fit with our beliefs, somehow.”

---

<sup>259</sup> Archie Thompson quoted in Nuu-chah-nulth Tribal Council, *Nuu-chah-nulth Land Question: Sea and Resources*, Brochure stating Nuu-chah-nulth Tribal Council position on resource management, 1990, 10.

<sup>260</sup> John Charlie quoted in Nuu-chah-nulth Tribal Council, *Nuu-chah-nulth Land Question*, 11.

Although LBMF documents often mention the importance of respecting and incorporating TEK, the 1998 Advisory group felt that TEK was not clearly defined, although the LBMF had helped develop a protocol for working with TEK in 1996. From 1998-1999, the LBMF had a working group that addressed TEK, but it did so alongside a plethora of other objectives. It dealt broadly with communications, education, and “naturalized knowledge”, so it was responsible for an array of tasks, including running the website and the Rainforest Interpretive Centre, operating youth programs, and building a decision support system that incorporated First Nations’ perspectives. That required development of a protocol between the LBMFS and the Nuu-chah-nulth to enable the use of TEK in LBMFS programs.<sup>261</sup> Given this workload, the group split by 2000, and a new group was entirely dedicated to TEK. This may demonstrate increased sensitivity to the complex implications of TEK, a recognition that it is not merely an issue of knowledge and communication to be administered alongside other Model Forest initiatives. Before its shutdown, the LBMF produced two projects that demonstrated, through their methodology, a creative and vital engagement with TEK.

The first of these projects was called “The Meaning and Practice of Hahuulthi”, and sought to promote better understanding of Hahuulthi in regional planning bodies and non-aboriginal communities, as well as in First Nations communities. Hahuulthi is the Nuu-chah-nulth’s system of hereditary ownership and control of traditional territories, also translated to mean a longstanding system of resource use and management.<sup>262</sup> It implies that chiefs are responsible for the land and the sea as well as their tribal members. The Scientific Panel had urged recognition of Hahuulthi as an essential aspect of meaningful Nuu-chah-nulth participation in future co-management. The LBMF’s project was designed to include interviews, research, workshops, and presentations to gather and assess the meanings and practices of Hahuulthi, and to lead to the development of a set of protocols and recommendations to help incorporate it into the “scientific” management system. The research coordinators for the project were Nuu-chah-nulth themselves. They conducted twenty-five interviews with elders and hereditary chiefs as the information basis of the project. Conferences and workshops that followed emphasized the discussion and demonstration of the concepts learned from the interviews, and were entirely structured around Nuu-chah-nulth activities, such as traditional feasts and gift-giving

---

<sup>261</sup>LBMFS, “1998-1999 Long Beach Model Forest Workplan,” Ucluelet, B.C.: LBMF Society, 1999.

<sup>262</sup>LBMFS, “The Meaning and Practice of Hahuulthi: Its Applications for Sustainable Resource Management. Project Update, October 2000,” Ucluelet, B.C.: LBMF Society, 2000.

ceremonies.<sup>263</sup> By allowing Nuu-chah-nulth culture to guide the character of the Hahuulthi project, the LBMF genuinely treated Hahuulthi as a system of knowledge that might inform science, rather than “an object for science”.<sup>264</sup> Moreover, that informing of science was executed at every step with Nuu-chah-nulth consultation to prevent feelings of distrust or fear that any knowledge would be presented out of its context or stolen and used by others.

By grounding the project so completely in Nuu-chah-nulth ways, the research coordinators may have avoided some of the pitfalls of TEK research done elsewhere in Canada. One such example is the Kluane First Nation’s experiences with co-management of Dall sheep in the southwest Yukon. As the anthropologist Paul Nadasdy has argued, a provincial government committee collected Kluane traditional knowledge yet:

“... not passed on to young people and incorporated back into the daily life of the community, but filed away to be consulted occasionally in the course of land claims negotiation or resource management debates. Indeed, the artifacts produced by these traditional knowledge studies, useful though they may be in certain contexts (specifically, for those which they were produced), actually possess none of the characteristics that such studies themselves use in their definitions of TEK in the first place. That is, rather than being holistic, oral, qualitative, and intuitive, TEK artifacts tend to be categorized, written, quantitative, and analytical.”<sup>265</sup>

Some Kluane members sat on a committee and were asked to recall when, where, and how many sheep they had seen over the years. Their responses aided in the creation of a series of maps; this was considered adequate consideration of traditional perspectives on the part of the science community. Many of their accounts and suggestions about rules for hunting were treated as isolated observations, with little interest in how the Kluane interpreted what they saw or how it was embedded in social relations. Of course, the Hahuulthi project was not a co-management project in the same sense as the territorial-First Nations projects described in the Yukon. However, the B.C. government had imprinted comparable footprints on similar ground in dealing with the Nuu-chah-nulth. Between 1996 and 1999, the Ministry of Forests and of Environment, Lands, and Parks conducted a multi-phase operational inventory of baseline conditions, which would eventually enable watershed planning as outlined by the Scientific Panel. During the inventories, the Nuu-chah-nulth were asked to identify cultural resources and culturally important areas within their traditional territories. But as a Hesquiaht representative pointed out

---

<sup>263</sup> LBMFS, “2000-2001 Long Beach Model Forest Annual Report,” Ucluelet, B.C.; LBMF Society, 2001.

<sup>264</sup> Nadasdy, *Hunters and Bureaucrats*, 11.

<sup>265</sup> Nadasdy, “The politics of TEK”, 9.

in 1997, they were consulted on the wildlife inventory in a minimal way. Researchers had organized interviews to ask about changes in populations of Roosevelt Elk and black bear, yet made no mention of numerous other species that the Nuu-chah-nulth did not hunt. Just because these people do not hunt marbled murrelets, songbirds, or amphibians does not mean that they do not have knowledge of them. Their participation in the inventory was piecemeal, and served to compartmentalize bits of their complex, interconnected relationship with the environment of Clayoquot Sound.

Recognizing this, the LBMF, obtained funding for the second of its TEK-related initiatives, a pilot project to learn about perceptions of all species of wildlife. They shared some goals with the original inventory project-to learn about causes of population declines and how to achieve conservation-but importantly, also “wanted to demonstrate respect for Nuu-chah-nulth views and traditional ecological knowledge and gather suggestions for how to include these in planning future inventories and land use practices”.<sup>266</sup> The final report carefully describes the methods of contacting and selecting ten individuals from four nations for interviews, and is full of lengthy direct quotes. It concludes that the Nuu-chah-nulth see the distribution of much wildlife shrinking and its diversity declining, that this is related to logging practices, and that they are willing to share their perspectives as a means of being involved in resource-planning and decision-making.

“And of course even other people who are out there studying, in more of a layman’s sense, but still have the practical knowledge necessary to share really good information. Maybe start discussion forums with these people interacting, what do you see going on with your plant studies, your ethnobotany studies. You know we so often classify and categorize and compartmentalize everything that sometimes the left hand and the right hand are not interacting enough. So why don’t we tie all our research into one package that can be studies in a way that reflects the overall impact.”<sup>267</sup>

While these are merely two projects, the results of which were not widely publicized, they demonstrate the types of social learning and respect between stakeholders that the Model Forest Program ostensibly held as key to sustainable forest management. Yet they and other successes were not enough to save the LBMF from its demise in 2002. Following a Phase II evaluation in 2002, the CFS discontinued funding, and the LBMF’s plans for Phase III, such as

---

<sup>266</sup>LBMFS, “First Nations’ Perspectives on Wildlife Inventories in Clayoquot Sound,” Ucluelet, B.C.: LBMF Society, 2000, 5.

<sup>267</sup>Roman Frank Sr. in LBMFS, “First Nations’ Perspectives on Wildlife Inventories”, 34.

research into ecosystem dynamics on the Kennedy Flats, were scrapped. Thus ended another story in the acrimonious collection of tales about B.C. forest politics.

## Conclusion: Stories about failure?

The LBMF has largely disappeared from official documentation; its history and materials are not mentioned on the current CMFN website, which documents the MFP in Phase III. As the staff of LBMF disbanded, they scattered in the communities of Clayoquot Sound as well as to other places in the province, taking personal files and boxes of documents with them. What was left was inherited by the Clayoquot Biosphere Trust, an organization that administers the UNESCO Biosphere Reserve now present in the Sound. It is a partial collection, and much lies unsaid between the blacked-out lines of some correspondence, or the gaps in what is archived. In a region so saturated by research and planning processes, the LBMF experience seems to have melted away, doomed by its context into becoming one more story on a long list of conflicts. The headline of one newspaper article seems to say it all: "Legacy of War in the Woods helped kill model forest on Vancouver Island".<sup>268</sup> What is the purpose of recounting such a story; should research not be focused instead on cataloging successes and inspiring future hope?

To some extent, this thesis only reinforces the more negative assessments of the LBMF. There is no doubt that the particular history and context of Clayoquot Sound within B.C.'s forest politics made life hard, and spawned distrust and personal conflict among many residents of the area. By looking beyond the accounts of discord and inefficiency that fill the CFS evaluation, however, this study offers a new way of interpreting the short and contentious existence of the LBMF. First is worth recognizing that the LBMF was an entity squeezed between two scales of governance—the federal and the provincial—that collectively left it little room to be. It was part of a publicity-oriented program and was expected to perform to a national and international audience. The federal government's sense of what sustainable development is and what it required were simultaneously vague and demanding, making it difficult for Model Forests to have clear and specific vision statements. Sustainable development generally *was* multistakeholder planning and consideration of the social, ecological and economic dimensions of sustainability. In the minds the Canadian Forest Service, it specifically *was not* the enormous amount of time needed to bridge cultural understanding, the measuring of ecological impacts in a deforested region, or a politically engaged entity. It *was* a vessel to carry forward the research and development, technology-oriented mandate of a historically feeble forest sector now facing worldwide criticism and competition. It *was* the strategic embrace of a paradigm shift that was going to

---

<sup>268</sup>Steve Mertl, "Legacy of War in Woods helped kill model forest on Vancouver Island; report," *Canadian Press*, 14 April 2002.

make Canada look better, produce more, and reinforce its longstanding forest nation identity. It *was not* the continued funneling of funds into projects that were not completed, or mired in controversy, but most of all, that were not the “right kind” of research.

The LBMF ran up against this wall on one side, and against the bulwark of B.C.’s Ministry of Forests on the other. B.C.’s insistence that Model Forests not affect its forest policies effectively stripped the LBMF and McGregor Model Forest of any serious role in change. The McGregor Model Forest stayed safely within the boundaries laid out for it by provincial authorities, and did not need to be told its place again. The LBMF, much to the exasperation of many, was like an opening in a dyke, through which the muddy waters of forest politics in Clayoquot Sound threatened to rush. It gave money and a soapbox to a contentious and forward-thinking region of B.C. And this only served to increase the swirling tensions. Just as many in the Sound latched onto and tried to steer the LBMF to make change, the province made sure it would have no teeth. First Nations and others recognized this from the start, exhausted as they were from myriad failed processes in the past twenty years, and were frustrated by the ‘uselessness’ of the LBMF. Thus, it was quickly marginalized. Simply put, the people of Clayoquot and surrounding areas were not willing to try any more vague projects that would not work out. The abstract mandate of the MFP had not found a very comfortable home on the west coast of Vancouver Island; there it was subject to more constant questioning and criticism than any other site on the Canadian MF Network. Meanwhile, individuals and organizations took what they could, making the LBMF feel at times like an employment agency, not a focused group working towards sustainable forest management.<sup>269</sup> As its directors tried to save it from losing its funding, they were encouraged to think of it as a consulting business, and to shift direction to more forestry activities “on the ground”<sup>270</sup>, but it was too late.

Secondly, it is essential to contrast the LBMF’s stance on the social leg of sustainability with the incremental agenda of the MFP. The sum of the LBMF experiment offers a clear demonstration that forest-planning processes cannot go on without a social and community focus. The 1998 Advisory Group commented that the LBMF needed to “move to the forest”, because its projects were not truly linked, in their eyes, to forest management. However, the LBMF was already there—it was deeply entrenched in the forest in another sense. Forests can no longer be regarded as simple spaces of resource extraction, or even of wilderness. They are

---

<sup>269</sup>CMFN, “Report of Advisory Group on LBMF to the LBMF Board of Directors.”

<sup>270</sup>LBMFS, “Minutes of Board of Directors’ meeting, February 11<sup>th</sup>, 1998,” Ucluelet, B.C.: LBMF Society, 1998.

actual places, but they also are composed of people, materials, processes, bodies, and desires- all situated in their own contingent historical experience. To manage such an assemblage, even for a single use such as timber, is to hold the reins to a world of complexity: labour relations, community stability, ecosystem health, watershed properties, or tenure and law are merely a few of the considerations. The effects of resource extraction on all of these can no longer be masked or unwritten. This signals a fundamentally new identity for Canada, so long shaped by the pervasive patterns of its staples trades. The 1990s saw Canada engaging with sustainable development, cognizant of the need for change, but primarily emphasizing action in the spheres of research and technology. The social became the background, became the implicit and assumed, rather than the forefront of this transition. The LBMF, no matter how much federal money it consumed or how many people it angered, did begin to refute this simplistic position.

This is not to suggest that the LBMF was an ideal institution and that the CFS treated it entirely unfairly. However, the history of the LBMF, fully told, yields a good deal of insight into what happens when the federal government makes programs on large scales that reach down into small places, and when that reaching down occurs with only a vague definition of what is required by the centre. "It is important to have a shared definition of how knowledge will be applied. This includes agreement over not only the use of the knowledge, but also the definition of the problem to be addressed".<sup>271</sup> In the end, the most important lesson offered by the LBMF may be that success does not lie in treating places as mere nodes in an efficient network. In order to relate to communities and to work cohesively towards sustainable forest management and sustainability in other areas, the social elements cannot be implied, assumed, or otherwise written out; they are not neutral, minor obstacles that fade as the ball of research and development gets rolling, remaining only as pleasant anecdotes about overcoming difference. It has been said that all environmental problems and all environmental politics are local. These claims rest on two premises. The first relates to the historical development of local and provincial political economies that I have outlined in this thesis. These arrangements are the background structures of environmental change, and are constantly transformed by actions and processes linked to the global economy. They are also modified by the practice of local politics, executed also by outsiders, but mainly by residents with vested personal experience in places like Clayoquot Sound. The interaction of the materialist structures of environmental and the social power of local politics creates both real and imagined landscapes such as the postmodern forest that I have

---

<sup>271</sup> L. Buttolph and S. Doak, "The integration of knowledge in place-based ecosystem management," *Ecotrust: Portland, O.R.*, 2000, vi.

described. “Those landscapes reflect decades or centuries of patterned and organized human activity...but those landscapes can be changed, either deliberately or accidentally, and we make those changes with some imagined goals in mind”.<sup>272</sup> These imagined goals vary across scales, leading to an inevitable “messiness” in multistakeholder planning that will only increase as pressures on existing resources increase. Thus, the LBMF story is not merely a minor historical account, but an experience with salience for the ongoing processes affiliated with sustainability and change.

Finally, it is my hope that by reviving this story, I will salvage it, not merely from being an orphan, but from being entirely discounted as a learning experience. Tales of confusion and conflict cannot help but be part of our transition to different, arguably more complex ways of seeing our world and its future. In coping with them, thoughtfully interpreting them, and forging ahead, never relinquishing hope and creativity, we are capable of engendering a more just and socially accountable relationship with our environment.

---

<sup>272</sup>Ronnie Lipschutz, *Global Environmental Politics: Power, Perspectives, and Practice* (Washington, D.C.: CQ Press, 2004), 135.

Table 1.1: The shifting terrain of sustainable forest discourse in Canada

	SUSTAINED YIELD	SUST. DEVELOPMENT	SUSTAINABILITY
Basic entities and assumptions, recognized or constructed	<ul style="list-style-type: none"> <li>-the economy</li> <li>-forests for output of timber-not broad environmental concept</li> <li>-harvest regulation can ensure regular yield with no disruptions of supply</li> </ul>	<ul style="list-style-type: none"> <li>-the economy</li> <li>-the environment</li> <li>-economic growth and environmental protection go together</li> </ul>	<ul style="list-style-type: none"> <li>-societies and individuals-is ultimately contingent on human behaviour and capacity</li> </ul>
Attitudes towards "nature"	<ul style="list-style-type: none"> <li>-forest structure can and should be normalized into even aged stands through human agency</li> </ul>	<ul style="list-style-type: none"> <li>-nature is subordinate</li> <li>-technological fixes possible</li> <li>-ambiguity about "limits" to growth</li> <li>-utilitarian</li> <li>-reformist and human-centered</li> </ul>	<ul style="list-style-type: none"> <li>-value change is necessary-often idealistic</li> <li>-preservation</li> <li>-environments are complex and we do not fully understand them or our role, although science allows us some sense</li> <li>-nature and culture are integrated, and dealing with the environment requires interdisciplinary, multifaceted perspectives</li> </ul>
Notions of best management of forests	<ul style="list-style-type: none"> <li>-science allows accurate prediction of best harvest levels</li> <li>-equilibrium and continued productivity can be assured in a crop rotation model</li> <li>-goal is a continuous and yield of timber from a "normalized" forest with even age classes; mature forest culled to make way for efficient, younger trees</li> </ul>	<ul style="list-style-type: none"> <li>-forests are a resource that can be managed for continued output</li> <li>-management must be more efficient, technologically advanced, and built on cooperation and networking</li> <li>-recognition of ecosystem structures; uncertain how to manage for complexity</li> </ul>	<ul style="list-style-type: none"> <li>-forests have multiple values such as recreation, education, non-timber forest products-these should be attended to just as much as timber</li> <li>-ecosystems are complex; keystone species within them need protection. Habitat fragmentation should be prevented.</li> <li>-not only trained scientists, but citizens and especially subaltern voices should have a say in planning</li> </ul>
Key metaphors and aspects of language	<ul style="list-style-type: none"> <li>-regulation, conversion,</li> <li>-rationality</li> <li>-reassurance of continuity</li> </ul>	<ul style="list-style-type: none"> <li>-nature as capital</li> <li>-progress and development</li> <li>-balance and equilibrium</li> </ul>	<ul style="list-style-type: none"> <li>-allows larger critiques of political and economic aspects of western society; affiliated with concerns about globalization</li> <li>-social learning; an integrative concept</li> </ul>
As manifested in international discourse	<ul style="list-style-type: none"> <li>-German forestry schools-trained foresters internationally</li> </ul>	<ul style="list-style-type: none"> <li>-Brundtland Commission and Report, 1987</li> <li>-UNCED Rio Earth Summit, 1992</li> <li>-tends to be used by governments and private sector</li> </ul>	<ul style="list-style-type: none"> <li>-tends to be used by academics and NGOs, but increasingly used by governments and private sector</li> <li>-IPCC Assessment Reports 2001, 2007</li> </ul>

Table 1.2. References to national forestry objectives in the Earth Summit Forest Principles, 1992.

Principle number	Statement of Principle
3. (a)	National policies and strategies should provide a framework for increased efforts, including the development and strengthening of institutions and programmes for the management, conservation and sustainable development of forests and forest lands.
6. (b)	National policies and programmes should take into account the relationship, where it exists, between the conservation, management and sustainable development of forests and all aspects related to the production, consumption, recycling and/or final disposal of forest products.
8. (c)	The implementation of national policies and programmes aimed at forest management, conservation and sustainable development, particularly in developing countries, should be supported by international financial and technical cooperation, including through the private sector, where appropriate.
12. (d)	Appropriate indigenous capacity and local knowledge regarding the conservation and sustainable development of forests should, through institutional and financial support and in collaboration with the people in the local communities concerned, be recognized, respected, recorded, developed and, as appropriate, introduced in the implementation of programmes. Benefits arising from the utilization of indigenous knowledge should therefore be equitably shared with such people.

Source: Forest Principles...

Table 3.1. Envisioned attributes of a model forest in 1991.

**Communications and administration**

Budget, leveraging accomplished with federal funds, communications plan

**Advanced technology and techniques.** Linkages into existing research programs, evidence of results diffused to others nationally and internationally

**Best forestry practices**-a set of activities and results over a five year period. Differ from present practices.

**An objectives and management philosophy** that supports the concepts of sustainable development and integrated resource management: balance between differing objectives, partnerships, relevance to MFP goals, long-term commitment to sustainable development

Source: NACMF 1991.

Figure 3.1. The Ten Model Forest Selections, 1992

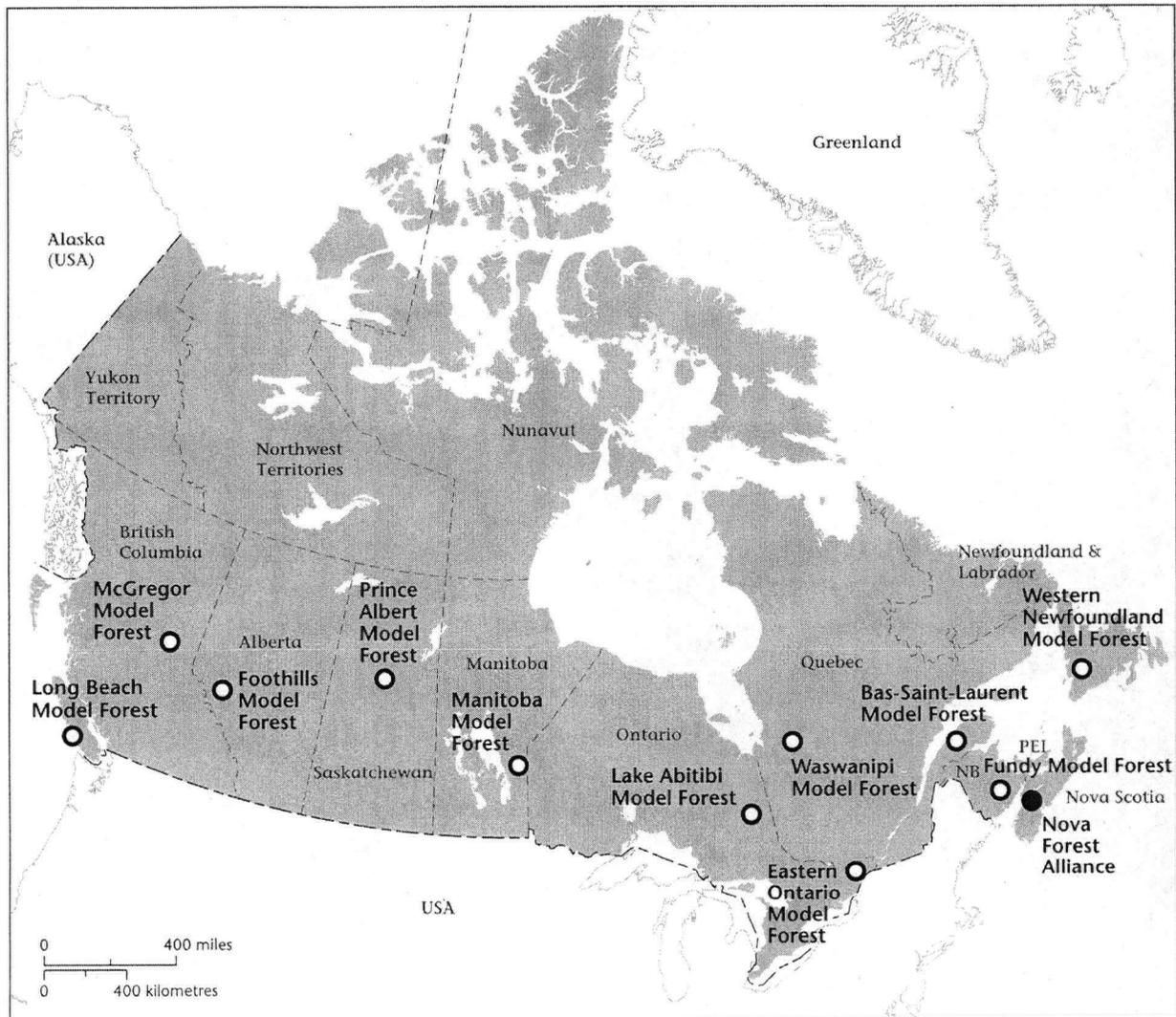


Figure 3.2. Pedagogy that invokes Model Forests



- Existing Model Forests
- ▲ Developing or Expanding Model Forests

### Canadian Model Forests

- Long Beach Model Forest
- McGregor Model Forest
- Foothills Model Forest
- Prince Albert Model Forest
- Lake Abitibi Model Forest
- Manitoba Model Forest
- Eastern Ontario Model Forest
- Waswanipi Cree Model Forest
- Bas-Saint-Laurent Model Forest
- Fundy Model Forest
- Western Newfoundland Model Forest

### International Model Forests

- Chile:** Chiloé Model Forest
- Japan:** Hokkaido Model Forest, Shimauto-gawa Model Forest, Ishikarin-Soracht Model Forest
- Mexico:** Calakmul Model Forest, Chihuahua Model Forest, Monarch Butterfly Model Forest
- Russia:** Gassinski Model Forest
- United States:** Applegate Adaptive Management Area [AMA], Cispus AMA, Hayfork AMA

Other countries interested in joining the IMFN include: Argentina, Australia, China, India, Indonesia, Pakistan, Vietnam, and countries within the Southern African Development Community such as Malawi and South Africa.

### Teaching Idea



Divide into groups to compare Canada's forests with those of other countries [United States, Mexico, Brazil, Russia, Nigeria, Malaysia or others] using **Canada's Forests** as a model.

Ask the groups to present their findings to the class and compare information. Does this information support Canada's role as a world leader in sustainable forest management? Why or why not?

Where to look: atlases, Microsoft Encarta™ or similar encyclopaedia, library books, the country's website or Internet connection with a school in that country.

# Model Forest Crossword



Canada:  
 Bas-Saint-Laurent  
 Foothills  
 Fundy  
 Maritoba  
 McGregor  
 Prince Albert  
 Waswanipi  
 Western Newfoundland

United States:  
 Applegate  
 Cispus  
 Hayfork  
 Chile: Chilos  
 Mexico: Chihuahua  
 Russia: Gassinski

### Down

1. working to use the traditional ecological knowledge of the local Cree
3. offering Forestry Clubs for Russian students
4. using satellite tracking to learn more about the woodland caribou
6. located in Saskatchewan's boreal forest
8. work to manage the mountain forests of British Columbia
10. located in the Cascade Mountain and Coast range of Oregon and California
13. located in a forest region named for the Acadians

### Across

2. located in northwestern California, this model forest includes a diverse range of vegetation
5. this Quebec model forest is experimenting with tennant forest farms
7. nestled among the volcanic peaks of Mount St. Helen, Mt. Ranier and Mount Adams
9. this Mexican model forest is conducting research to protect the endangered spruce tree, the Chihuahua
11. a South American MF working with a New Brunswick MF
12. Jasper National Park is part of this model forest
14. conducting studies on the endangered pine marten

See answers on page 32

Figure 4.1. Vancouver Island, British Columbia

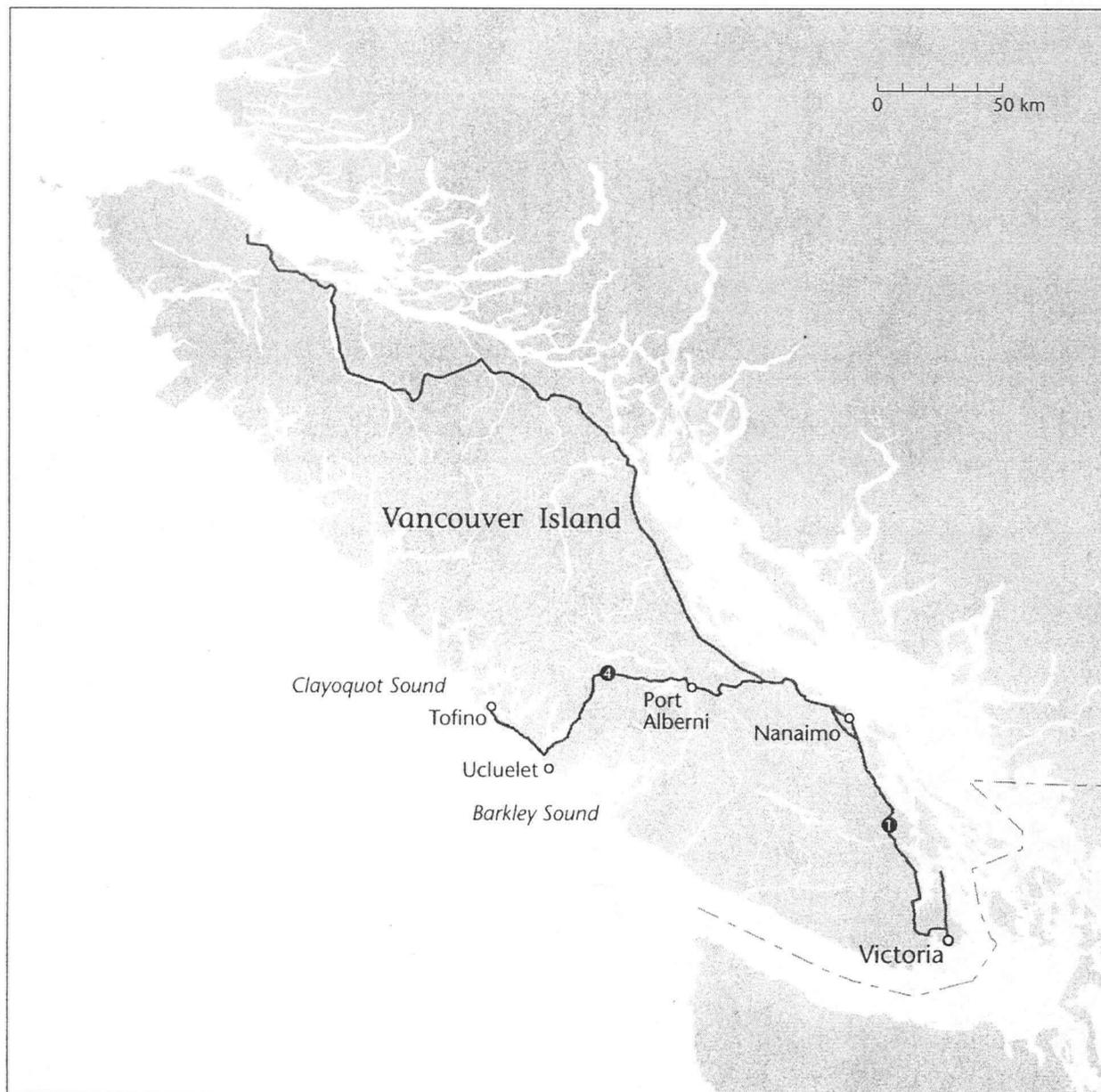


Figure 4.2. Clayoquot Sound, British Columbia

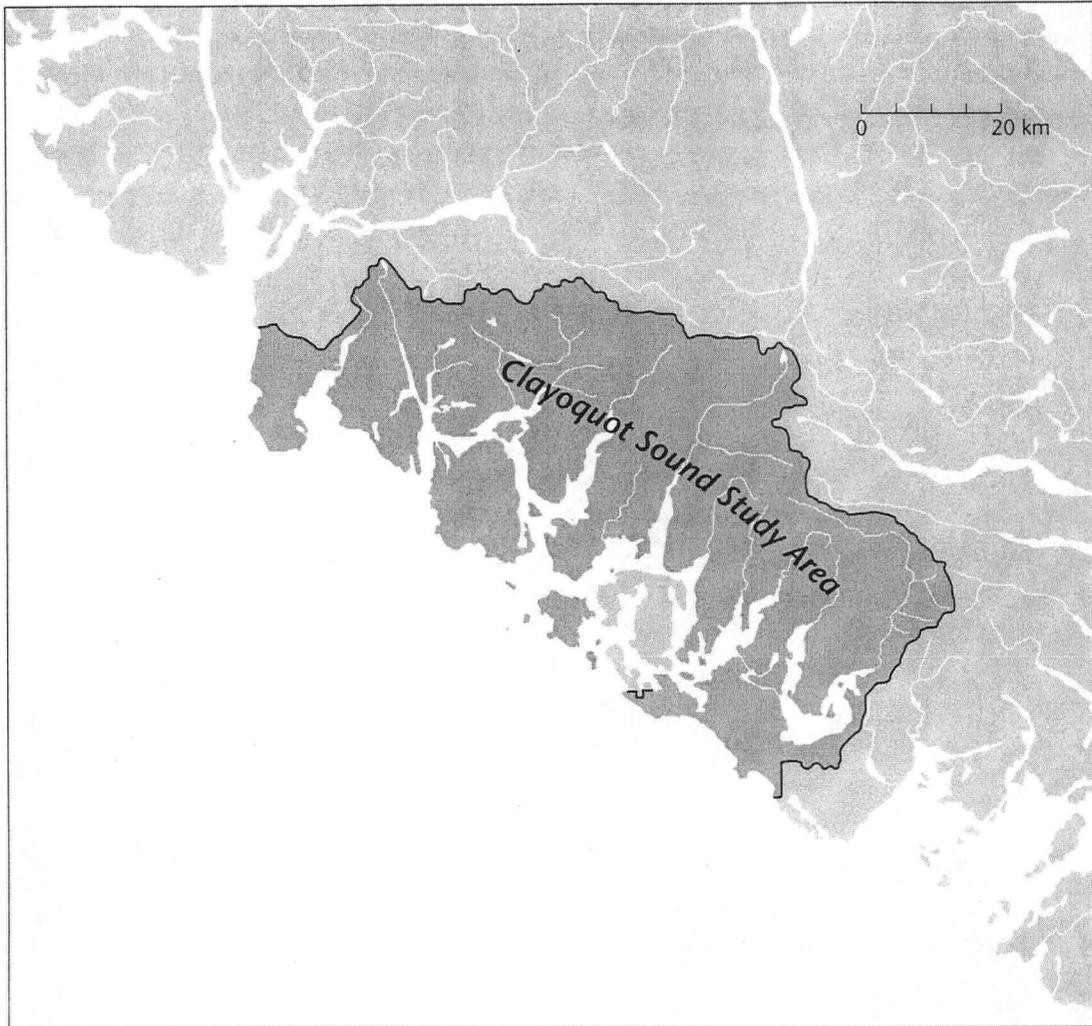


Figure 5.1. The Long Beach Model Forest

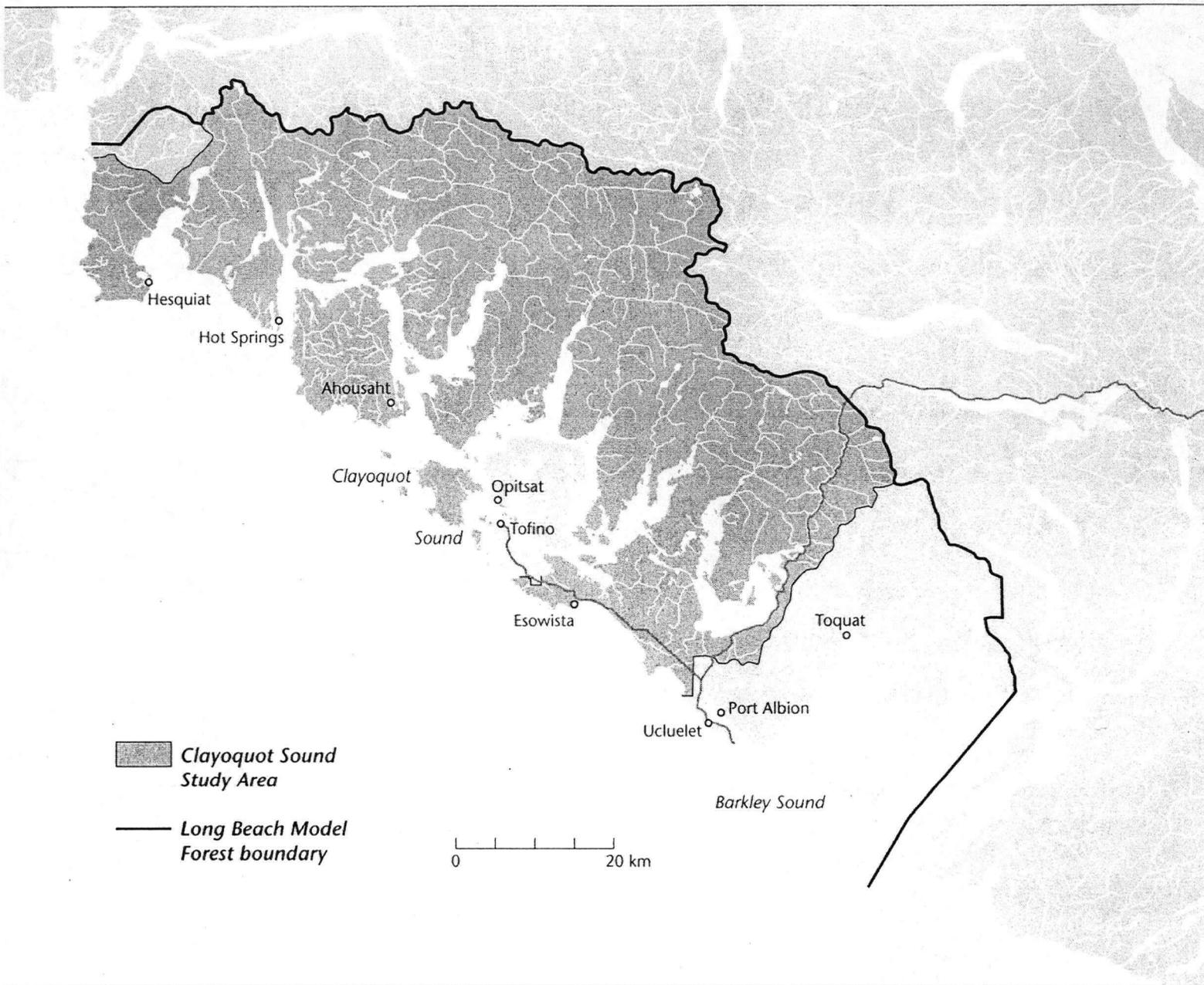
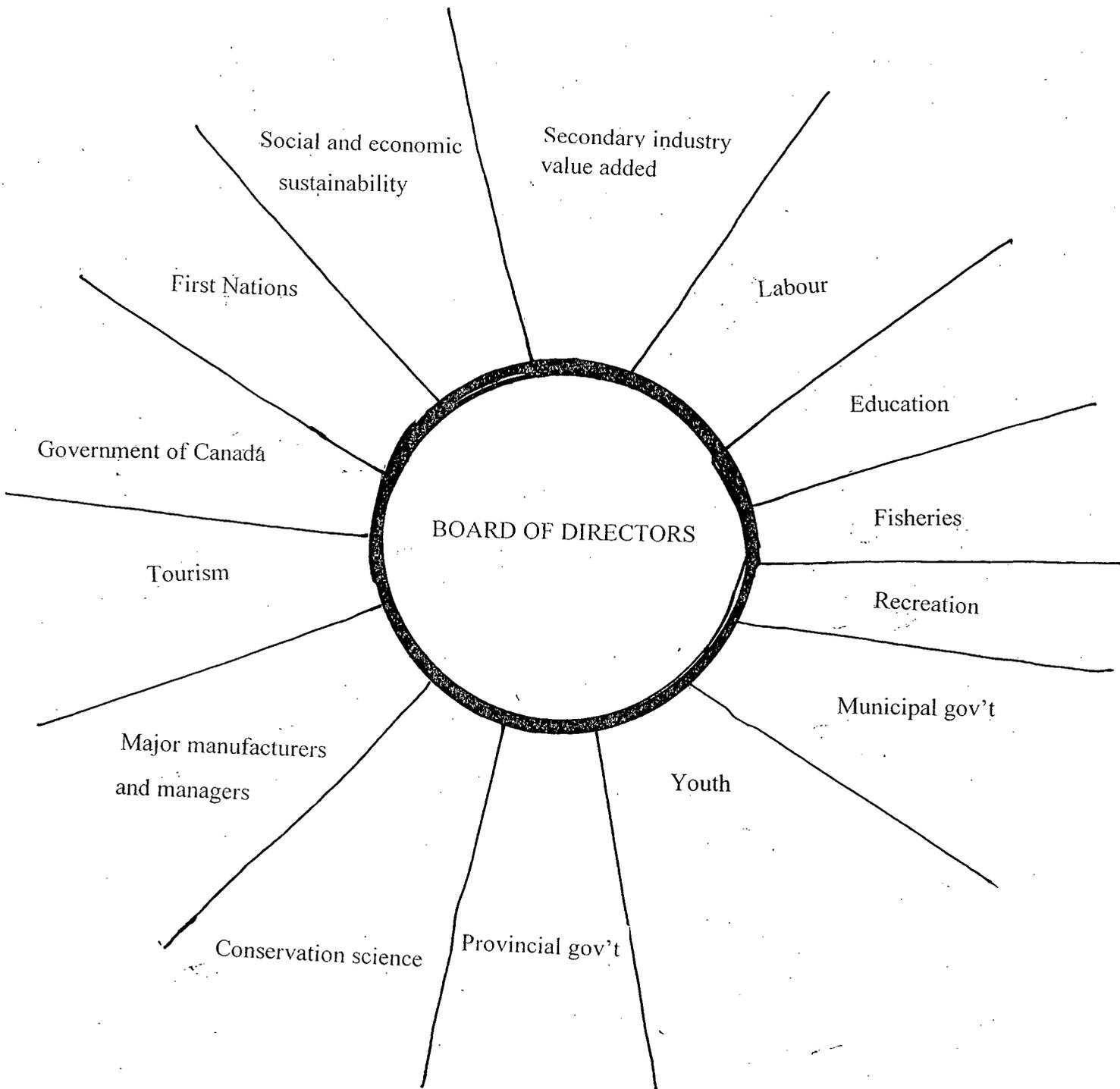


Figure 5.2. Sectoral representation on the Long Beach Model Forest Board of Directors as planned at its inception, 1993.



# Bibliography

## *Primary Sources*

### **Federal government documents**

Canadian Forestry Service. *A Forest Sector Strategy for Canada*. Ottawa: Ministry of the Environment, 1981.

CCFM. *A National Forest Sector Strategy for Canada*. Ottawa: Ministry of Supply and Services, 1987.

CCFM. *Sustainable Development: a Canadian Commitment*. Ottawa: Forestry Canada, 1992.

CCFM. *Sustainable Forests: A Canadian Commitment: National Forest Sector Strategy 1998-2003-National Congress Version*. Ottawa: Canadian Forest Service, 1998.

Environment Canada. "Canada's Green Plan: Canada's Green Plan for a Healthy Environment." Ottawa: Minister of Supply and Services Canada, 1990.

Science Council of Canada. "Canada's Threatened Forests: a Statement by the Science Council." Government of Canada, 1983.

Standing Committee on Natural Resources. "Canada: a Model Forest Nation in the Making. Report to Natural Resources Canada." Government of Canada, 1994.

### **Canadian Model Forest Program -government documents and reports to/for Model Forests excluding the LBMF**

CMFN. "Model Forest Program: year in review 1992-1993." Forestry Canada: Government of Canada, 1993.

CMFN. "Canada's Model Forest Program: an initiative for sustainable development?" Canadian Forest Service: Government of Canada, 1994.

CMFN. "Model Forest Program: year in review 1993-1994." Canadian Forest Service: Government of Canada, 1994.

CMFN. "Model Forest Program: year in review 1994-1995." Canadian Forest Service: Government of Canada, 1995.

CMFN. "Background document: evaluation study report No. PE 218/95." Canadian Forest Service: Government of Canada, 1995.

CMFN. "Building partnerships for sustainable forest management-Information leaflet." Canadian Forest Service: Government of Canada, 1996.

CMFN. "Minutes of the CMFN Enhanced Aboriginal Working Group Meeting, Edmonton, AB, January 25<sup>th</sup>, 1998." Canadian Forest Service: Government of Canada, 1998.

CMFN. "Science in the Canada's Model Forests: overview of scientist's projects and involvement." Canadian Forest Service: Government of Canada, 2001.

CMFN. "Model Forest Network: building partnerships for sustainable forest management." Information leaflet. Canadian Forest Service: Government of Canada, n.d.

Gardner-Pinfold Consulting Economists, Ltd., "Evaluation of the Canadian Model Forest Program: Prepared for the National Advisory Committee for the Model Forest Program Evaluation" Canadian Model Forest Network, 1996.

George, Margaret, and George Haas. "Trees of Akwesasne." Eastern Ontario Model Forest: Canadian Forest Service, 1996.

Holmes, E.A. "LLI and databases common across the Canadian Model Forest Network: a view to possible information sharing and networking opportunities." Unpublished report to the Canadian Forest Service: Government of Canada, 1998.

Forestry Canada. "Background information and guidelines for applicants-Canadian Model Forest Program." National Advisory Committee on Model Forests: Government of Canada, 1991.

Forestry Canada. "Canada's Model Forest Network: proposed sites." National Advisory Committee on Model Forests: Government of Canada, 1992.

Forestry Canada. "Model Forests: summary of proposals." National Advisory Committee on Model Forests: Government of Canada, 1992.

Future Directions Committee. "Beacons of Sustainability: Canada's Model Forests." Canadian Model Forest Network, Canadian Forest Service: Government of Canada, 2000.

Kulshreshtha, S.N., and K. Agyirey-Kwakye. "Selected Socio-Economic Characteristics of Aboriginal Families Living Off-Reserve: A Case Study of Prince Albert." A report submitted to the Prince Albert Model Forest Association, March 1995.

NSOC. "Canada's Model Forest Program." Leaflets made for NSOC Briefing on Strategy. Canadian Model Forest Network: Government of Canada, 1999.

NSOC. "National Strategic and Operations Committee Meeting Minutes, Quebec, 2000." Canadian Model Forest Network: Government of Canada, 2000.

NSOC. "Network Strategic and Operations Committee Meeting Record, Toronto, O.N., 2001." Canadian Model Forest Network: Government of Canada, 2001.

Walker, H., Consulting Enterprises, Ltd. "First Nation participation in Canada's Model Forest Program 1992-1997: accomplishments and opportunities." A report prepared for the Enhanced Aboriginal Involvement Initiative of Canada's Model Forest Program: Saskatoon, S.K., 1998.

**Clayoquot Sustainable Development Committees (1989-1993); RDAC-CSSDSC; and Nuu-Chah-Nulth stance on sustainable development: Pre-LBMF.**

Darling, Craig. "In Search of Consensus: An Evaluation of the Clayoquot Sound Sustainable Development Task Force Process. Victoria: The University of Victoria Institute for Dispute Resolution, 1991.

Nuu-chah-nulth Tribal Council. *Nuu-chah-nulth Land Question: Sea and Resources*. Brochure stating Nuu-chah-nulth Tribal Council position on resource management. 1990.

Nuu-chah-nulth Tribal Council. "Statement of interests by the Tla-o-qui-aht, Hesquiaht, Toquaht, and Ucluelet First Nations regarding the Long Beach Model Forest Society." Statement to the LBMF Board of Directors, 1993.

Steering Committee for Sustainable Development. "Responding to the Challenge: Community-based sustainable development." A brief to the Environment and Land Use Committee of the B.C. Cabinet by the Steering Committee for Sustainable Development, District of Tofino, 1990, 23.

RDAC-CSSDSC. "Proposal for "Area C Model Forest" to the Canadian Model Forest Program." Port Alberni, B.C., 1992.

\_\_\_\_\_. "Resignation of all environmental representation from CSSDSSC." Letter submitted to Director, CSSDSSC, 21 May 1991.

**Long Beach Model Forest documentation**

Bach, Greg. "Letter to Wally Samuel, LBMF GM: File 10624/LBMF 97-98," B.C. Ministry of Forests: Government of British Columbia, 13 June 1997.

Canada-British Columbia, "Memorandum of Understanding-Canada-B.C. Agreement for implementation of Model Forest Program in the Province of British Columbia," January 1993.

CMFN. "Report of Advisory Group on LBMF to the LBMF Board of Directors." Advisory Group LBMF, Canadian Forest Service: Government of Canada, 1998.

CMFN. "Long Beach Model Forest-Phase II Evaluation Report." Canadian Forest Service: Government of Canada, 2002.

LBMF. "Orientation Background Information Package, Proposed Long Beach Model Forest." Port Alberni: RDAC-CSSDSSC, 1993.

LBMFS. "Long Beach Model Forest: The First Six Months. Annual Report 1994-1995." Ucluelet, B.C.: LBMF Society, 1995.

LBMFS. "Summary of projects 1995-1996." Ucluelet, B.C.: LBMF Society, 1996.

- LBMFS. "Report: Status of the Long Beach Model Forest Program GIS Program as of May 1996." Ucluelet, B.C.: LBMF Society, 1996.
- LBMFS. "Long Beach Model Forest Society Revised Phase II Proposal submitted to Natural Resources Canada." Ucluelet, B.C.: Long Beach Model Forest Society, 1998.
- LBMFS. "LBMFS Criteria and Indicators Workshop Proceedings, November 12-13, 1998." Ucluelet, B.C.: LBMF Society, 1998.
- LBMFS. "Minutes of Board of Directors' meeting, February 11<sup>th</sup>, 1998." Ucluelet, B.C.: LBMF Society, 1998.
- LBMFS. "Chronology and Narrative of First Nations Involvement in the Long Beach Model Forest, 1992-1997." Ucluelet, B.C.: LBMF Society, 1998.
- LBMFS. "1998-1999 Long Beach Model Forest Workplan." Ucluelet, B.C.: LBMF Society, 1999.
- LBMFS. "Minutes of Board of Directors' meeting, February 18<sup>th</sup>, 2000." Ucluelet, B.C.: LBMF Society, 2000.
- LBMFS. "The Meaning and Practice of Hahuulthi: Its Applications for Sustainable Resource Management. Project Update, October 2000." Ucluelet, B.C.: LBMF Society, 2000.
- LBMFS. "First Nations' Perspectives on Wildlife Inventories in Clayoquot Sound." Ucluelet, B.C.: LBMF Society, 2000.
- LBMFS. "Monitoring the Impacts of Forest Practices on Ecosystems of the West Coast of Vancouver Island: Project Reports." Ucluelet, B.C.: LBMF Society, 2001.
- LBMFS. "Criteria and Indicators and Monitoring Programs. Report on progress, October 2001." Ucluelet, B.C.: LBMF Society, 2001.
- LBMFS. "2000-2001 Long Beach Model Forest Annual Report." Ucluelet, B.C.: LBMF Society, 2001.
- LBMFS. "Monitoring the Scientific Panel recommendations for sustainable forest management in Clayoquot Sound." Ucluelet, B.C., LBMF Society, 2002.
- LBMFS. "Comments on CFS Long Beach Model Forest-Phase II Evaluation Report," Ucluelet, B.C.: LBMF Society, 2002.
- Scientific Panel for Sustainable Forest Practices in Clayoquot Sound. "Report of the Scientific Panel for Sustainable Forest Practices in Clayoquot Sound. 31 January 1995.
- Streetly, Joanna, "Letter of resignation to LBMFS; position of alternate director of recreation, 5 March 1998."

## Newspaper articles on the Long Beach Model Forest

Ambrose, Denise. "Clayoquot Sound Science Symposium." *Ha-Shilth-Sa (Port Alberni, B.C.)* 18 December 1996.

Beyer, Hubert. "Model forest-hope for the future." *The Victoria Times-Colonist (Victoria, B.C.)* 2 August 1995.

Diotte, Rob. "Splits threaten Long Beach Model Forest." *Alberni Valley Times (Port Alberni, B.C.)* 31 August 1993.

\_\_\_\_\_. "Model Forest no help to Alberni-Clayoquot." *Alberni Valley Times (Port Alberni, B.C.)* 4 November 1996.

Drews, Kevin. "Model Forest funding withheld pending revamp." *The Westerly News (Tofino, B.C.)* 19 May 1999.

Klausat, Sonya. "LBMF gets failing grade in gov't report." *The Westerly News (Tofino, B.C.)* 12 December 2001.

Mertl, Steve. "Legacy of War in Woods helped kill model forest on Vancouver Island; report." *Canadian Press*, 14 April 2002.

Ritchie, Leanne. "Possible community forest back on table." *The Westerly News (Tofino, B.C.)* 1 December 1999.

\_\_\_\_\_. "Model Forest Interp Centre to close." *The Westerly News (Tofino, B.C.)* 8 March 2000.

\_\_\_\_\_. "LBMF monitoring program gets funding boost." *The Westerly News (Tofino, B.C.)* 31 January 2001.

Spence, Nadine. "Youth Futures Forum in Tofino." *Ha-Shilth-Sa (Port Alberni, B.C.)* 25 March 1999.

Stewart, Lisa. "Model forest feels it's 'finally on track'." *The Westerly News (Tofino, B.C.)* 16 November 1995.

\_\_\_\_\_. "Model Forest AGM derailed by procedural wrangling." *The Westerly News (Tofino, B.C.)* 22 November 1995.

Waskito, Jolanda. "Frustrated at indecision of Model Forest Board." *The Westerly News (Tofino, B.C.)* May 24<sup>th</sup>, 1995.

[unknown]. "District withdraws support for LBMF." *The Westerly News (Tofino, B.C.)* 11 March 1998.

[unknown]. "Long Beach Model Forest fate uncertain." *The Westerly News (Tofino, B.C.)* 7 November 2001.

## *Secondary Sources*

Agnew, John. "Regions on the mind does not equal regions of the mind." *Progress in Human Geography* 23, no.1 (1999): 91-96.

Agrawal, Arun. "Indigenous and Scientific Knowledge: Some Critical Comments." *Development and Change* 26 (1995): 413-439.

Angus Reid Group. "Forestry issues on Vancouver Island-Final Report submitted to the Vancouver Island Community Coalition." Angus Reid Group, Inc., 1994.

Ayling, Ron. "Model Forests: a partnership-based approach to landscape management." In *Social Learning in Community Forests*. ed. Eva Wollenberg, Louise Buck, Jeff Fox, and Sonja Brodt, 151-171. Jakarta, Joint publication of the Center for International Forestry Research and the East-West Center.

Bakvis, Herman, and W.M. Chandler. *Federalism and the Role of the State*. Toronto: University of Toronto Press, 1987.

\_\_\_\_ and Grace Skogstad, eds. *Canadian Federalism: Performance, Effectiveness, Legitimacy*. Toronto: Oxford University Press, 2001.

Barnes, Trevor. "Borderline communities: Canadian single industry towns, resources, and Harold Innis." In *B/ordering SpaceRegions*, ed. H. Van Houtum, O. Kramsch, and W. Zierhofer, 109-122. Aldershot: Ashgate, 2005.

Barnes, Trevor, and Roger Hayter, eds. *Troubles in the Rainforest: British Columbia's Forest Economy in Transition*. Victoria, B.C.: Western Geographical Press, 1997.

Beckley, Thomas; John Parkins; and Richard Stedman. "Indicators of Forest-Dependent Community Sustainability: The Evolution of Research." *Forestry Chronicle* 78, no.5 (September/October 2002): 626-636.

Berkes, Fikret. *Sacred Ecology: Traditional Ecological Knowledge and Resource Management*. London: Taylor and Francis, 1999.

\_\_\_\_ and H. Fast. "Aboriginal peoples: The basis for policy-making towards sustainable development" in *Achieving Sustainable Development*. eds. Ann Dale and John Robinson, 204-264. Vancouver: UBC Press, 1996.

\_\_\_\_; Johan Colding; and Carol Folke, eds. *Navigating Social-Ecological Systems*. Cambridge, Cambridge University Press, 2003.

Bernstein, Steven. *The Compromise of Liberal Environmentalism*. New York: Columbia University Press, 2001.

Beyers, Joanna. "The Forest Unbundled: Canada's National Forest Strategy and Model Forest Program, 1991-1997." Ph.D diss., York University, 1998.

\_\_\_\_\_. "Model Forests as Process Reform: Alternative Dispute Resolution and Multistakeholder Planning." in ed. Michael Howlett, 172-203. *Canadian Forest Policy: Adapting to Change*. Toronto, University of Toronto Press, 2001.

Bidinosti, Angela. "Understanding Forest Values: Canada's Model Forest Program" Master's thesis, University of Manitoba, 1999.

Botkin, Daniel. *Discordant Harmonies: A New Ecology for the Twenty-First Century*. New York: Oxford University Press, 1990.

Boyd, David., and Terri Williams-Davidson. "Forest People: First Nations Lead the Way Towards a Sustainable Future." in *Sustaining the Forests of the Pacific Coast: Forging Truces in the War in the Woods*. eds. Debra Salazar and Donald Alper, 123-147. Vancouver: UBC Press, 2000.

Brenner, Neil. "The limits to scale? Methodological reflections on scalar structuration." *Progress in Human Geography* 25, no.4 (2001): 591-614.

British Columbia, Legislative Assembly, Select Standing Committee on Aboriginal Affairs, "Towards Reconciliation: Nisga'a Agreement-in-Principle and British Columbia Treaty Process-First Report-July 1997," Second Session, Thirty-sixth Parliament Legislative Assembly of British Columbia, July 1997.

British Columbia Ministry of Forests and Range. "Forest, Range and Recreation Analysis: Section 9.1.3." 1995.

Buckingham-Hatfield, Susan and Susan Percy, eds. *Constructing Local Agendas: People, Place and Participation*. London: Routledge, 1999.

Bull, Gary, and Olaf Schawb. "Communities and forestry in Canada: A review and analysis of Model Forest and Community Forest programs in Canada." In *Community and Forestry: Where People Meet the Land*, ed. R. Lee. and D. Field, 176-193. Corvallis: Oregon State University Press, 2005.

Burda, Cheri; Fred Gale, and Michael M'Gonigle. "Eco-forestry versus the state(us) quo: or why innovative forestry is neither contemplated nor permitted within the state structure of British Columbia." *BC Studies* 119 (1998):45-72.

Burrows, Mae. "Multistakeholder Processes: Activist Containment versus Grassroots Mobilization." In *Sustaining the Forests of the Pacific Coast: Forging Truces in the War in the Woods*, eds. Debra Salazar and Donald Alper, 209-230. Vancouver: UBC Press, 2000.

Butler, Caroline. "Historicizing Indigenous Knowledge: Practical and Political Issues" in ed. Charles Menzies, 107-126. *Traditional Ecological Knowledge and Natural Resource Management*. Lincoln, NB: University of Nebraska Press, 2006.

Buttolph, L. and S. Doak. "The integration of knowledge in place-based ecosystem management." Ecotrust: Portland, O.R., 2000.

Careless, J.M.S. *Frontier and Metropolis: Regions, Cities, and Identities in Canada Before 1914*. Toronto: University of Toronto Press, 1989.

Cashore, Benjamin; George Hoberg; Michael Howlett; Jeremy Rayner; and Jeremy Wilson, eds. *In Search of Sustainability: British Columbia Forest Policy in the 1990s*. Vancouver: UBC Press, 2001.

Cook, Tracey. "Sustainable Practices? An Analysis of BC's Forest Practices Code." in *The Wealth of Forests: Markets, Regulation, and Sustainable Forestry*, ed. Chris Tollefson, 204-231. Vancouver: UBC Press, 1998.

Cronon, William, ed. *Uncommon Ground: Toward Reinventing Nature*. New York: W.W. Norton and Company, 1995.

Dawe, Neil, and Kenneth Ryan. "The Faulty Three-Legged Stool of Sustainable Development." *Conservation Biology* 17, no. 5 (2003): 1458-1460.

Dellert, Lois. "Sustained Yield: Why Has it Failed to Achieve Sustainability?" in *The Wealth of Forests: Markets, Regulation, and Sustainable Forestry*. ed. Chris Tollefson, 255-277. Vancouver: UBC Press, 1998.

Dobell, Rod, and Martin Bunton. "Sound governance: the emergence of collaborative networks and new institutions in the Clayoquot Sound region." Background paper for Clayoquot Sound Regional Workshop, September 25, 2001.

Drushka, Ken; Bob Nixon, and Ray Travers, eds. *Touch Wood: B.C. Forests at the Crossroads*. Madeira Park, B.C.: Harbour Publishing, 1993.

\_\_\_\_\_ and Bob Burt. "The Canadian Forest Service: Catalyst for the Forest Sector." *Forest History Today* (spring/fall 2001): 19-28.

Dryzek, John. *The Politics of the Earth: Environmental Discourses*. Oxford: Oxford University Press, 2005.

Fernow, B.E. *A Brief History of Forestry in Europe, the United States, and Other Countries*. Toronto: University of Toronto Press, 1913.

Frame, Tanis; Thomas Gunton; and J. C. Day. "The role of collaboration in environmental management: an evaluation of land and resource planning in British Columbia." *Journal of Environmental Planning and Management* 47, no.1 (2004): 59 – 82.

Gibbins, Roger. "Local governance and federal political systems." *International Social Science Journal* 53, no.167 (March 2001): 163-170.

Gillis, R. Peter, and Thomas Roach. *Lost Initiatives: Canada's Forest Industries, Forest Policy and Forest Conservation*. Westport, C.T.: Greenwood Press, 1986.

Halber, Tania. "Ancient Temperate Rainforest and the Carmanah Giant: A Case Study of Activism." Master's thesis, Stirling University, 2003.

Haley, David, and Martin Luckert. "Tenures as Economic Instruments for Achieving Objectives of Public Forest Policy in British Columbia." in *The Wealth of Forests: Markets, Regulation, and Sustainable Forestry*. ed. Chris Tollefson, 123-151. Vancouver: UBC Press, 1998.

Harcourt, Michael. "Sustainable Development: B.C.'s Growing Future: 1989 Legislative Program for Sustainable Development." Victoria: Government of B.C., 1989.

Harrison, Kathryn. *Passing the Buck: Federalism and Canadian Environmental Policy*. Vancouver: UBC Press, 1996.

Hayter, Roger. *Flexible Crossroads: the Restructuring of British Columbia's Forest Economy*. Vancouver: UBC Press, 2000.

Hessing, Melody; Michael Howlett; and Tracy Summerville. *Canadian Natural Resource and Environmental Policy: Political Economy and Public Policy*. Vancouver: UBC Press, 2005.

Hoberg, George. "How the Way We Make Policy Governs the Policy We Make." In *Sustaining the Forests of the Pacific Coast: Forging Truces in the War in the Woods*, eds. Debra Salazar and Donald Alper, 23-53. Vancouver: UBC Press, 2000.

\_\_\_\_\_. "The 6 Percent Solution: The Forest Practices Code." In *In Search of Sustainability: British Columbia Forest Policy in the 1990s*. ed. Benjamin Cashore *et al.*, 61-93. Vancouver: UBC Press, 2001.

Hocking, Brian. "The Woods and the Trees: Catalytic Diplomacy and Canada's Trials as 'Forestry Superpower.'" *Environmental Politics* 5, no. 3 (1996): 448-475.

Holling, C.S. "The resilience of terrestrial ecosystems: local surprise and global change." In *Sustainable Development of the Biosphere*, eds. W.C. Clark and R.E. Munn, 292-320. Cambridge: Cambridge University Press, 1986.

Howlett, Michael. "The Federal Role in Canadian Forest Policy: From Territorial Landowner to International and Intergovernmental Co-ordinating Agent." in *Canadian Forest Policy: Adapting to change*. ed. Michael Howlett, 378-418. Toronto: University of Toronto Press, 2001.

\_\_\_\_\_. "The Politics of Long-Term Policy Stability: Tenure Reform in British Columbia Forest Policy," in *In Search of Sustainability: British Columbia Forest Policy in the 1990s*, ed. Benjamin Cashore *et al.*, 94-119. Vancouver: UBC Press, 2001.

\_\_\_\_\_. "Policy venues, policy spillovers, and policy change: the courts, aboriginal rights, and British Columbia forest policy." in *In Search of Sustainability: British Columbia Forest Policy in the 1990s*. ed. Benjamin Cashore *et al.*, 120-139. Vancouver: UBC Press, 2001.

\_\_\_\_\_, ed. *Canadian Forest Policy: adapting to Change*. Toronto, University of Toronto Press, 2001.

\_\_\_\_ and Jeremy Rayner. "Policy Regimes and Policy Change in the Canadian Forest Sector" in *Canadian Forest Policy: Adapting to Change*. ed. Michael Howlett, 23-62. Toronto: University of Toronto Press, 2001.

Humphreys, David. "The Global Politics of Forest Conservation Since the UNCED." *Environmental Politics* 5, no.3 (1996): 231-256.

Inglis, Julian, ed. *Traditional Ecological Knowledge: Concepts and Cases*. Ottawa: International Development Research Centre, 1993.

Innis, Harold. *Problems of Staple Production in Canada*. Toronto: The Ryerson Press, 1933.

Islands Protection Society. *Islands at the Edge: Preserving the Queen Charlotte Islands Wilderness*. Vancouver: Douglas and MacIntyre, 1984.

Johnson, M. "Dene Traditional Knowledge." *Northern Perspectives* 20, no.1 (1992): 3-5.

Krech, Shepard. *The Ecological Indian*. New York: W.W. Norton and Company, Inc., 1999.

Latour, Bruno, and Steve Woolgar. *Laboratory Life: the Construction of Scientific Facts*. Princeton, N.J: Princeton University Press, 1986.

Lipschutz, Ronnie. *Global Environmental Politics: Power, Perspectives, and Practice*. Washington, D.C.: CQ Press, 2004.

Lower, Arthur. *The North American Assault on the Canadian Forest : a History of the Lumber Trade Between Canada and the United States*. New York: Greenwood Press, 1968.

\_\_\_\_. *Great Britain's Woodyard: British America and the Timber Trade, 1763-1867*. Montreal: McGill-Queen's University Press, 1973.

M'Gonigle, Michael. "Living Communities in a Living Forest: Towards an Ecosystem-Based Structure of Local Tenure and Management." In *The Wealth of Forests: Markets, Regulation, and Sustainable Forestry*, ed. Chris Tollefson, 152-185. Vancouver: UBC Press, 1998.

\_\_\_\_, and Wendy Wickwire. *Stein: the Way of the River*. Vancouver: Talonbooks, 1988.

\_\_\_\_, and Ben Parfitt. *Forestopia: a Practical Guide to the New Forest Economy*. Madeira Park, B.C.: Harbour Publishing, 1998.

Magnussen, Warren, and Karena Shaw, eds. *A Political Space: Reading the Global Through Clayoquot Sound*. Montreal and Kingston: McGill-Queen's University Press, 2002.

Mansfield, Becky. "Thinking through scale: the role of state governance in globalizing North Pacific Fisheries." *Environment and Planning A* 33 (2001): 1807-1827.

Marchak, Patricia. *Green Gold: the Forest Industry in British Columbia*. Vancouver: UBC Press, 1983.

- Marchak, Patricia; Scott Aycock, and Deborah Herbert. *Falldown: Forest Policy in British Columbia*. Vancouver: Ecotrust Canada and the David Suzuki Foundation, 1999.
- McKenzie, Judith. *Environmental Politics in Canada*. Toronto: Oxford University Press, 2002.
- Milne, David. *Tug of War: Ottawa and the Provinces under Trudeau and Mulroney*. Halifax: James Lorimier and Company, Ltd., 1986.
- Mitchell, Bruce, ed., *Resource and Environmental Management in Canada*. Toronto: Oxford University Press, 1995.
- Morrison, Peter. "Canada's Green Plan: An Expression of the Popular Will?" in ed. Alan Frizzell and Jon Pammett, 55-74. *Shades of Green: Environmental Attitudes in Canada and Around the World*. Ottawa: Carleton University Press, 1997.
- Nadasdy, Paul. "The politics of TEK: power and the 'integration' of knowledge." *Arctic Anthropology* 36, no. 1-2 (1999): 1-18.
- \_\_\_\_\_. *Hunters and Bureaucrats: Power, Knowledge, and Aboriginal-State Relations in the Southwest Yukon*. Vancouver: UBC Press, 2003.
- \_\_\_\_\_. "The Case of the Missing Sheep: Time, Space, and the Politics of 'Trust' in Co-Management Practice" in ed. Charles Menzies, 127-152. *Traditional Ecological Knowledge and Natural Resource Management*. Lincoln, NB: University of Nebraska Press, 2006.
- Nathan, Holly. "Aboriginal Forestry: the Role of First Nations." In *Touch Wood: B.C. Forests at the Crossroads*. ed. Ken Drushka, Bob Nixon, and Ray Travers, 137-170. Madeira Park, B.C.: Harbour Publishing, 1993.
- Newell, Diane. *Tangled Webs of History: Indians and the Law in Canada's Pacific Coast Fisheries*. Toronto, University of Toronto Press, 1993.
- Paterson, Matthew. "Overview: Interpreting Trends in International Environmental Governance." *International Affairs* 75 (no.4) 1999: 793-802.
- Pearse, Peter. *Timber Rights and Forest Policy in British Columbia: Report of the Royal Commission on Forest Resources*. Victoria: Queen's Printer, 1976.
- Pepper, David. *Modern Environmentalism: An Introduction*. London: Routledge, 1996.
- Rajala, Richard. *Clearcutting the Pacific Rain Forest: Production, Science, and Regulation*. Vancouver: UBC Press, 1998.
- Reed, Maureen. "Implementing Sustainable Development in Hinterland Regions." in *Resource and Environmental Management in Canada*, ed. Bruce Mitchell, 335-359. Toronto: Oxford University Press, 1995.
- \_\_\_\_\_. *Taking Stands: Gender and the Sustainability of Rural Communities*. Vancouver: UBC Press, 2003.

Robinson, John. "Defining A Sustainable Society: Values, Principles and Definitions." *Alternatives* 17, no.2 (1990): 36-46.

\_\_\_\_\_. "Squaring the circle? Some thoughts on the idea of sustainable development." *Ecological Economics* 48 (2004): 369-384.

Roseland, Mark. "Natural Capital and Social Capital: Implications for Sustainable Community Development." in *Communities, Development, and Sustainability Across Canada*, ed. J. Pierce and Ann Dale, 190-207. Vancouver: UBC Press, 1999.

Salazar, Debra, and Donald Alper, eds. *Sustaining the Forests of the Pacific Coast: Forging Truces in the War in the Woods*. Vancouver: UBC Press, 2000.

Sample, Alaric, and Roger Sedjo. "Sustainability in Forest Management: An Evolving Concept." *International Advances in Economic Research* 2, no. 2(May 1996): 165-173.

Scott, A., John Robinson, and D. Cohen, eds. *Managing Natural Resources in British Columbia: Markets, Regulations, and Sustainable Development*. Vancouver, UBC Press, 1995.

Scott, James. *Seeing Like a State*. New Haven, CT: Yale University Press, 1999.

Sinclair, John. "Model forests: towards more sustainable forest management?" Report to the Manitoba Model Forest, CMFN, 1998.

Sloan, Gordon. *Report of the Honourable Gordon McG. Sloan, Chief Justice of British Columbia, Relating to the Forest Resources of British Columbia*. Victoria: Queen's Printer, 1945.

Sloan, Gordon. *Report of the Honourable Gordon McG. Sloan, Chief Justice of British Columbia, Relating to the Forest Resources of British Columbia*. Victoria: Queen's Printer. 1956.

Stanbury, W.T. *Environmental Groups and the International Conflict Over the Forests of British Columbia, Canada*. Vancouver: SFU-UBC Centre for the Study of Government and Business, 2000.

\_\_\_\_\_; Ilan Vertinsky, and Bill Wilson. *The Challenge to Canadian Forest Products in Europe: Managing a Complex Environmental Issue*. Vancouver: Forest Economics and Policy Research Unit, University of British Columbia, 1994.

UNCED. *Rio Declaration on Environment and Development*. From the final text of agreements negotiated by governments at the United Nations Conference on Environment and Development (UNCED), 3-14 June 1992: Rio de Janeiro, Brazil.

Usher, Peter. "Traditional Ecological Knowledge in Environmental Assessment and Management." *Arctic* 53, no.2 (June 2000): 183-193.

Westmacott, M.W. and H. Mellon. *Challenges to Canadian Federalism*. Scarborough, Ont: Prentice-Hall Canada, 1998.

White, Richard. "Are You an Environmentalist or Do You Work for a Living?" in *Uncommon Ground: Toward Reinventing Nature*, ed. William Cronon, 171-185. New York: W.W. Norton and Company, 1995.

Wilson, Jeremy. *Talk and Log: Wilderness Politics in British Columbia*. Vancouver: UBC Press, 1998.

\_\_\_\_\_. "Talking the Talk and Walking the Walk: Reflections on the Early Influence of Ecosystem Management Ideas." in *Canadian Forest Policy: Adapting to Change*, ed. Michael Howlett, 94-126. Toronto: University of Toronto Press, 2001.

World Commission on Environment and Development (WCED). *Our Common Future*. Oxford: Oxford University Press, 1987.

Wynn, Graeme. *Timber Colony: a Historical Geography of Early Nineteenth Century New Brunswick*. Toronto: University of Toronto Press, 1981.

Zelko, Frank. "Making Greenpeace: The Development of Direct Action Environmentalism in British Columbia." *BC Studies* 142-143 (summer/autumn 2004): 197-240.

Appendix 1. A Timeline of Department Names for the Federal Forest Sector, 1867-1994

1867: BRITISH NORTH AMERICA ACT DEFINES POWERS OF DOMINION AND PROVINCES

1873: DEPT. OF INTERIOR

1899: ELIHU STEWART APPOINTED INSPECTOR OF TIMBER AND FORESTRY

1899: 1926 DEPT. OF THE INTERIOR. DOMINION FORESTRY BRANCH

1926-1936: DEPT. OF THE INTERIOR. FORESTRY SERVICE

1906: DOMINION FOREST RESERVES ACT

1930: NATURAL RESOURCE TRANSFER AGREEMENT ACTS

1936: DEPT. OF MINES AND RESOURCES

1936-1947: DEPT. OF MINES AND RESOURCES. LANDS, PARKS AND FORESTS BRANCH, DOMINION FOREST SERVICE

1947-1949: DEPT. OF MINES AND RESOURCES. MINES, FORESTS AND SCIENTIFIC SERVICES BUREAU. DOMINION FOREST SERVICE

1949: CANADA FORESTRY ACT

1950-1952: DEPT. OF RESOURCES AND DEVELOPMENT. FORESTRY BRANCH

1953-1960: DEPT. OF NORTHERN AFFAIRS AND NATIONAL RESOURCES. FORESTRY BRANCH

1960: DEPT. OF FORESTRY

1966-1968: DEPT. OF FORESTRY AND RURAL DEVELOPMENT. FORESTRY BRANCH

1968-1971: DEPT. OF FISHERIES AND FORESTRY. CANADIAN FORESTRY SERVICE

1971-1976: DEPT. OF THE ENVIRONMENT. CANADIAN FORESTRY SERVICE

1976-1979: DEPT. OF FISHERIES AND ENVIRONMENT. CANADIAN FORESTRY

SERVICE

1979-1984: DEPT. OF THE ENVIRONMENT. CANADIAN FORESTRY SERVICE

1984: DEPT. OF AGRICULTURE. MINISTRY OF STATE FORESTRY.

1986: DEPT. OF ENERGY, MINES AND RESOURCES. MINISTRY OF STATE FORESTRY AND MINES

1988: DEPT. OF FORESTRY (PENDING ROYAL ASSENT)

1989: BILL C-29 INTRODUCED TO ESTABLISH A FEDERAL DEPARTMENT OF FORESTRY

1990: ROYAL ASSENT AND PROCLAMATION OF THE DEPARTMENT OF FORESTRY

1990-1993: DEPT. OF FORESTRY-FORESTRY CANADA

1993: DEPT. OF NATURAL RESOURCES CANADA CREATED BY THE RE-ORGANIZATION, AMALGAMATING DEPT. OF FORESTRY WITH DEPT. OF ENERGY MINES AND RESOURCES.

1994: OFFICIAL NAME CHANGE FROM FORESTRY CANADA TO CANADIAN FOREST SERVICE. THE SERVICE EXISTS AS A SECTOR WITHIN NATURAL RESOURCES CANADA.

Appendix 2. The Scientific Panel for Sustainable Forest Practices in Clayoquot Sound:  
Selected references to stance on Nuu-chah-nulth involvement.

“The first task of the Scientific Panel was to establish a working protocol and guiding principles. The protocol developed by the Panel reflects the Nuu-Chah-Nulth approach to group processes whereby all members participate in determining the issues, information, and actions relevant to the Panel’s work. The protocol is characterized by a demonstrable and inclusive respect for one another, for different values, and for data founded in both science and traditional knowledge. It calls for each Panel member to exercise patience, flexibility, tolerance, endurance, and faith in a process and task that are surrounded by conflict and turmoil” (5).

“In Clayoquot Sound, scientific knowledge is based on experience of the west coast rainforest that has lasted for less than one-tenth of the lifetimes of the dominant trees in the forest. The collectively shared experience of the Nuu-Chah-Nulth, on the other hand, reaches far back into history, passed on by centuries of oral traditions... Traditional ecological knowledge complements scientific ecological knowledge by providing an external, independently derived standard in two ways. First, it places people firmly within the system, as an integral part, and does not remove them. Scientific knowledge, by reason of its method of acquisition, must first remove the knowledge recipient from the system to play the role of dispassionate observer. Second, traditional ecological knowledge does not depart from its holistic view. Acquisition of scientific ecological knowledge often begins from a holistic view, but then exploits repeatable, reductionist experiments, only to resynthesize these pieces back into a holistic view” (17).

“Co-management of the Clayoquot Sound ecosystem must be based on equal partnership between the Nuu-Chah-Nulth and the Province of British Columbia” (50).

“In consultation with the co-chairs of the Nuu-Chah-Nulth Tribal Council, *hahuulhi*, the traditional system for ecosystem management, must be recognized in ecosystem co-management processes of Clayoquot Sound. *Hahuulhi* will be used in determining ecosystem management within traditional boundary lines” (51).

Source: Clayoquot Sound Scientific Panel Report 3: First Nations’ Perspectives Relating to Forest Practices Standards in Clayoquot Sound.